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# Inclusion of students with behavior disorders: the relationship between school climate and student academic outcomes

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SCHOOL OF EDUCATION

Dissertation

**INCLUSION OF STUDENTS WITH BEHAVIOR DISORDERS:  
THE RELATIONSHIP BETWEEN SCHOOL CLIMATE  
AND STUDENT ACADEMIC OUTCOMES**

by

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**ABSTRACT**

The percent of students with behavior disorders (BD) served in general education classrooms has risen steadily over the past three decades. However, when compared to their peers, students with BD have lower grade point averages, more negative attitudes about school, and are more likely to experience poorer life outcomes (e.g. unemployment, incarceration). Therefore, there is a need for further research into best practices for meeting the academic, social, emotional, and behavioral needs of students with BD.

The purpose of this mixed methods study was to use a single example of a school setting with demonstrated positive academic outcomes to advance the understanding of a school climate that promotes positive academic outcomes for all students, specifically when students with BD are included in general education classrooms. The school participating in the current study is an urban elementary school that integrated students with BD into general education classrooms, where previously they were educated in substantially-separate classrooms. Participants of this study consisted of three general education teachers, three special education teachers, three administrators, and 43 students (five with behavior disorders and 38 without behavior disorders). Teachers and students

completed complimentary versions of the school climate subscale of the Delaware School Climate Survey (Bear & Yang, 2011) to examine perceptions of school climate. Teachers and administrators completed interviews, school activities and classes were observed, and school documents were analyzed to describe the characteristics of the school's climate.

Results revealed that (a) teachers and administrators described implementing purposeful techniques and teaching methods to support all students, specifically those with behavior disorders, (b) teachers and students differed in their perceptions of school climate, and (c) student perceptions of school climate were not significantly associated with their academic outcomes, in the entire sample, or as a function of student behavior disorder status. Implications are discussed relative to the relationship between school climate and academic outcomes when students with behavior disorders are included in general education classrooms.

*Keywords:* behavior disorders, inclusion, school climate, academic outcomes

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## **CHAPTER 1**

### **INTRODUCTION**

Students with behavior disorders (BD) demonstrate common behavioral characteristics that can include non-compliance, verbal and physical aggression, an inability to maintain interpersonal relationships, and a general pervasive mood of irritability and unhappiness (Kauffman & Landrum, 2009). Compared to their peers, students with BD are more likely to exit school prior to graduation, are less likely to complete postsecondary education, obtain a stable job or career, and are more likely to be incarcerated (Bullock & Gable, 2006; Carter & Lunsford, 2005; Gable, 2004; Quinn, Rutherford, Leone, Osher, & Poirier, 2005). Furthermore, students with BD have lower grade point averages and more negative attitudes about school when compared to students without BD (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). These findings suggest a need for further research into best practices for meeting the academic, social, emotional, and behavioral needs of students with BD.

Mental health disorders (e.g. anxiety, behavior, mood, and substance disorders) experienced by US adolescents are highly prevalent (Kessler et al., 2012). Among a national sample of US adolescents, 40.3% met DSM-IV criteria for a mental health disorder at some point in their lifetime (Kessler et al., 2012) and 9.6% exhibited disorders that were severe enough to significantly impair how they functioned at home, in school, or in the community (Marikangas et al., 2010). Therefore, the 5% of students receiving special education services due to an emotional or behavioral disorder in the US is an underrepresentation of students who meet criteria for such a disorder (U.S. Department of

Education, 2016). These statistics highlight not only a substantial service gap but also the likelihood that most general education classrooms will contain students who exhibit internalizing and externalizing behaviors consistent with a mental health disorder, regardless of whether or not they are identified as such.

Students receiving special education services for a BD are often educated in settings separate from the general student population. However, the percent of students with BD served in general education classrooms has risen steadily over the past three decades (U.S. Department of Education, 2016). Specifically, in 2012, 44% of students with BD were educated for 80% or more of the school day in general education settings, compared with only 24.9% of students with BD in 1998 (U.S. Department of Education, 2016). As a result of the increase in inclusive practices combined with the increase in students with BD, administrators, teachers, parents, and researchers might question how the academic outcomes of all students are impacted, specifically when students with BD are included in mainstream classrooms.

Among the many goals of inclusive education, promoting a climate of acceptance and value is of particular importance (Ryndak, Jackson, & Billingsley, 2000). Factors influencing the acceptance for all students, specifically those with BD, include student belongingness in the educational environment, equal membership and acceptance among students, and feelings of being valued in the school environment (Ryndak et al., 2000). The quality of school climate, especially when students with BD are included in general education classrooms, is largely a reflection of the quality of relationships between and among all individuals in the school (e.g. student-teacher, teacher-teacher, student-student,

teacher-principal; Bryk & Schneider, 2002), and greatly impacts students' perceptions of acceptance and value. Indeed, a positive climate for inclusive schools plays a significant role in the acceptance of individuals with BD, the development of meaningful friendships between those with and without behavior-related disabilities, an increase in student engagement, and strong achievement outcomes (Hughes, Cavell, & Willson, 2001; Mihalas, Morse, Allsopp, & Alvarez McHatton, 2009). However, individual impressions of school climate are subjective and vary across individual teachers, staff, and students. Students and teachers may have different perceptions of the quality of their school climate, which might affect teachers' methods for developing and maintaining a positive climate. These findings suggest that understanding the extent to which teachers and students agree on their perceptions of school climate in educational settings where students with BD are included and determining the association between these perceptions and student academic outcomes might be useful for determining characteristics that can promote successful inclusive schools and classrooms.

### **Purpose of the Study**

This study examined the association of school climate with the academic performance of students who attend the Monroe Elementary School.<sup>1</sup> Monroe Elementary is an urban elementary school that, prior to 2009, educated students with BD in four substantially separate classrooms. In 2009, the Monroe began including students with BD in general education classrooms. Instead of three substantially separate classrooms lead by special education teachers, the Monroe created inclusive classrooms across Grades 3–

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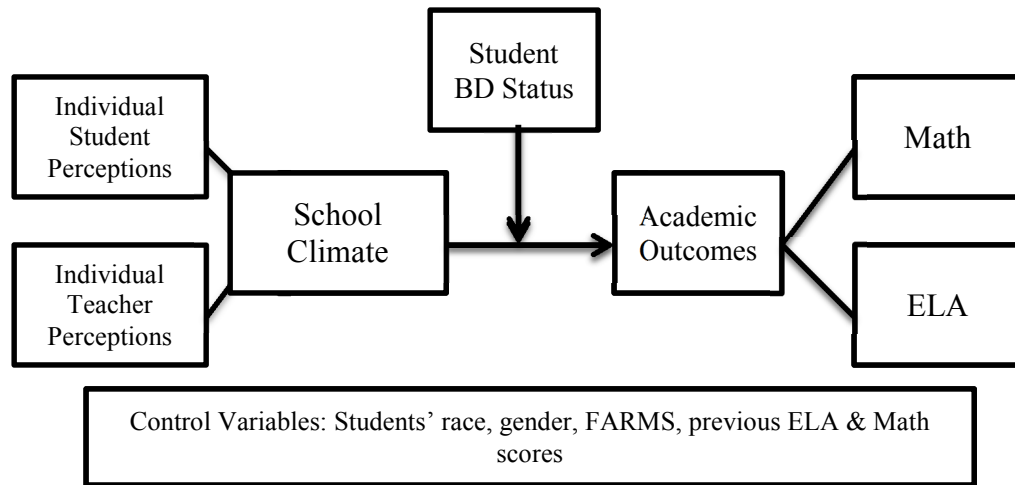
<sup>1</sup> The actual name of the school has been changed to this pseudonym to protect the identity of all individuals who participated in this study.

5, co-taught by both a general education teacher and a special education teacher. Since this shift in practice, the Monroe has demonstrated increased success on state standardized assessments for students with and without disabilities. This school presents an interesting context in which to examine the relationship of school climate and academic outcomes when students with BD are included in general education classrooms. This is because few schools report successful inclusion of students with BD, particularly success in improved academic achievement for students with and without BD (Fletcher, 2010; Gottfried, 2014). Knowing that academic outcomes at the Monroe were strong, this particular setting provided an opportunity to understand factors associated with these strong academic outcomes, with the goal of potentially facilitating similar outcomes in other schools. Based on research indicating a positive relationship between school climate and student academic outcomes, this study targeted school climate as one factor that might have a substantial and lasting influence on student social, emotional, and academic growth. The goal of this case study was to first examine the extent to which teachers (general and special educators) and students agree on perceptions of school climate and then to determine the extent to which these perceptions are associated with academic outcomes. Ultimately, the purpose of this study was to use a single example of a school setting that has demonstrated positive academic outcomes to advance the understanding of a school climate that promotes positive academic outcomes for all students, specifically when students with BD are included.

By studying the relationship between school climate and student academic outcomes, this research contributes to existing literature by identifying the salient

characteristics of a school climate that may meet the social, emotional, and behavioral needs of all students. Despite the volume of research on students with disabilities, inclusion, and school and classroom climate, there are notable gaps in understanding the school climate in schools that include students with BD. The following questions guide this study:

1. What characterizes the climate in an elementary school that includes students with BD?
2. To what extent is there agreement between teacher and student perceptions of school climate in an elementary school that includes students with BD?
3. To what extent are student perceptions of school climate associated with academic outcomes, when controlling for individual-level demographic factors? To what extent does having a BD moderate the relationship between school climate and student academic outcomes? (See Figure 1 for a model of relationships between study variables).



*Figure 1.* Model of relationships between study variables

### **Study Aims**

**Aim 1.** The first aim of this study is to describe the school climate at the Monroe Elementary School. School climate may be influenced by the perceptions that teachers and administrators have of their work environment. Crucial factors that affect their teaching and thereby influence the school climate may include the quality of leadership, resources, vision, and professional development (Lee, Bryk, & Smith, 1993). Therefore, it is important to understand the characteristics of climate from the perspective of teachers and administrators in a school that includes students with BD. Including methods such as interview, observation, and document analysis, characteristics of the Monroe's school climate will be investigated beyond those obtained from the completion of a school climate survey.

Participants in this aim include general and special education teachers in Grades 3–5 and three school administrators. These participants completed a school climate survey and participated in one-to-one interviews. In addition, school and classroom

observations were performed over two days and school documents analyzed in order to provide a rich description of the characteristics that illustrate Monroe's school climate. It was hypothesized that the teachers participating in this study would describe how they implemented purposeful interventions that they learned through building-based professional development activities, and articulate a shared vision of inclusive education held among their faculty.

**Aim 2.** The second aim of this study is to determine the extent to which there is agreement between teacher (general and special educator) and student perceptions of school climate in classrooms at this inclusive school. Studies of school climate often aggregate perceptions at a group level. Studying individual perceptions of school climate may offer valuable information about the quality of climate, as students have varying relationships with their teachers and peers, similarly teachers have varying relationships with students, especially when some students exhibit challenging behaviors. Therefore, the best approach for examining this phenomenon is by using a multi-informant approach. It was hypothesized that differences in perceptions of climate exist between students with and without BD, between general and special education teachers, and between teachers and students. It was further hypothesized that students with BD will have more negative perceptions of school climate than students without BD.

**Aim 3.** The third aim is to examine the association of student perceptions of school climate with academic outcomes. It was hypothesized that school climate will be associated with academic outcomes, even in analyses controlling for demographic factors (Free and Reduced Meals [FARMS], gender, race), and earlier academic performance

(English Language Arts [ELA] and Math). Further, Aim 3 will determine if there is a change in relationship between perceptions of school climate and academic outcomes when accounting for BD status. The purpose of this final aim was to determine the extent to which the relationship between school climate and student academic outcomes differed as a function of BD status. It was hypothesized that school climate would be associated with academic outcomes, consistent with previous research (MacNeil, Prater, & Busch, 2009; Sherblom, Marshall, & Sherblom, 2006). Further, it was hypothesized that student perceptions, analyzed as individual level variables, would be more strongly associated with academic outcomes than teacher perceptions because student perceptions may be more relevant to their own academic outcomes. Additionally, when BD status was added as a moderator variable in this analysis, it was hypothesized that the relationship between school climate and academic outcomes would be affected by students' BD status such that the relationship between school climate and academic outcomes would be stronger for students without BD. The results of this study may inform teacher preparation to develop and maintain a positive climate in schools and classrooms that include students with BD.

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

This section reviews literature related to the inclusion of students with BD in general education classrooms and the relationship between school climate and academic outcomes. A review of the research on behavior disorders and inclusive education provides a foundation for this study. Then, two theoretical frameworks are discussed to offer a lens through which to examine the interactions between teachers and students within a particular school context. Next, a discussion of school climate, including how school climate is measured is provided. Finally, this introduction will review multi-informant approaches to understanding school climate.

#### **Students with Behavior Disorders**

Several definitions of behavior disorders exist across psychological, medical, and educational domains. This study will use the definition of emotional disturbance provided by the Individuals with Disabilities Education Act (IDEA) when referring to students with BD. According to IDEA, students with BD exhibit:

One or more of the following characteristics over a long period of time and to a marked degree that adversely affects [their] 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 behavior or feelings under normal circumstances. (D) A general pervasive mood of

unhappiness or depression. (E) A tendency to develop physical symptoms or fears associated with personal or school problems (20 USC § 1400 § 300.A).

These characteristics can include a number of internalizing behaviors (e.g., depression) and externalizing behaviors (e.g., aggression) that inhibit a child's ability to build and maintain successful social relationships with peers, teachers, and adults. BD refers specifically to externalizing behaviors captured by this definition. Studies find that children with BD are predominately male (Reid et al., 2004) and are characterized as being behaviorally disruptive, noncompliant, and verbally and physically aggressive (Kauffman & Landrum, 2009). Furthermore, students with BD often suffer from chronic, intense anger that becomes debilitating (Hardman, 2015). Because their behaviors are disruptive, children with BD often arouse negative feelings in others, alienating both peers and adults (Kauffman & Landrum, 2009). Thus, characteristics of BD can significantly impair a child's ability to be included with their non-disabled peers (Reid et al., 2004).

Many students with BD do not receive early intervention services from mental health professionals or special educators and many do not receive necessary special education supports and services until after they have experienced many years of alienation and rejection by peers and adults (Kauffman & Landrum, 2009). Consequently, progress exhibited by students with BD can be limited (Reid et al., 2004). Additionally, the general education classrooms in which un-identified students with BD are placed are often unprepared to meet their needs (Freeman, Simonsen, Briere, & MacSuga-Gage, 2014). Indeed, many students with BD require specialized interventions, at a minimum,

to address their complex social deficits and challenges with emotional and behavioral regulation.

One factor that might influence students with BD's perceived quality of relationships with classmates, teachers, and ultimately the classroom climate, is a tendency to have Hostile Attribution Bias (HAB). HAB is the tendency for individuals to interpret the behaviors and intentions of others as hostile, even if these behaviors are pro-social and/or benign (Choe, Lane, Grabell, & Olson, 2013; Dodge, 2006; Dodge, Murphy, & Buchsbaum, 1984). Children with HAB believe the behaviors of others, especially peers, have a hostile intent, which often leads them to retaliate aggressively (de Castro, Veerman, Koops, Bosch, and Monshouwer, 2002). These hostile attributions are believed to stem from early memories of social events. Dodge (2006) describes the onset of HAB as occurring during early traumatic childhood events (e.g. physical abuse) or circumstances (e.g. insecure attachment to adults) that get stored in memory as "hostile schemas" (p. 793). Social interactions might activate the hostile schema in children with HAB, leading children with BD to expect to be rejected by others and, thus, act in aggressive and hostile ways (Downey, Lebolt, Rincón, & Freitas, 1998). In these circumstances, children with HAB do not only perceive the intentions of others as hostile, but also view rejection as a threat to their character. Furthermore, research has shown that, when aggressive children are in a negative emotional state, their hostile intent is exacerbated (de Castro, Slot, Bosch, Koops, & Veerman, 2003). According to Dodge (2006), "this pattern becomes a personality-like characteristic that endures across time and guides behavior" (p. 792). Students with BD are more likely to be disruptive and

aggressive in school, and their negative behaviors may affect all students. It is possible that the quality of school climate is affected by the HAB some students may have toward others.

In addition to demonstrating socially maladaptive behaviors, aggressive behaviors, and HAB, children with BD also make academic progress at a reduced rate (Downey et al., 1998). When compared to peers from other disability groups, children with BD scored lower in reading and math (Kauffman & Landrum, 2009; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Additionally, students with BD have lower graduation rates, are more likely to be suspended or expelled, experience higher rates of course failure, have a higher likelihood of exiting school prior to degree completion, and are less likely to attend postsecondary school (National Center for Educational Statistics, 2013; Wagner et al., 2005). Furthermore, it has been estimated that 70% of students with BD will be arrested within 3 years of leaving school, continuing a pervasive pattern of failure (Reid et al., 2004). Indeed, students with BD have a myriad of socio-emotional challenges that impact their overall development and ability to successfully engage in school and in the community.

Determining the most effective educational programming support for students with BD is challenging. Some experts have found that students with BD who were educated in self-contained schools reported a better quality of life (Sacks & Kern, 2008). Other experts advocate for full inclusion, mainly on the basis of social policy, equal access, and non-discrimination (Simpson, 2004). According to Reid et al. (2004), the social, emotional, and academic outcomes of students with BD are limited regardless of

their educational setting (e.g., substantially separate classrooms, general education classrooms, or some combination). Even results from studies evaluating residential facilities designed to treat psychiatric challenges have demonstrated inconsistent findings (Hooper, Murphy, Devaney, & Hultman, 2000; Lyons, Terry, Martinovich, Peterson, & Bouska, 2001). According to Lyons et al. (2001), out of the 285 adolescents with a behavior-related disorder (e.g. oppositional defiant disorder), many did not demonstrate statistically significant improvements in behaviors or emotional regulation after two years of interventions in residential facilities. In contrast, Hooper et al. (2000) found that 60% of the 111 adolescents who participated in their study were successful at functioning to a moderate adaptive level in social environments (e.g. school, home, community) after staying in a state-of-the-art residential treatment program for 9–10 months. However, the study defined functional adaptation in vague terms and variability was substantial.

Leichtman, Leichtman, Barber, and Neese's (2001) research offers optimism in educational programming for students with BD. In their analysis of 123 adolescents who received intensive, short-term residential treatment (3–4 months), 70% showed clinically significant changes in behavior. In this milieu, adolescents simultaneously received medication, psychotherapy, family therapy, and substance abuse counseling. It is important to consider, however, that academic outcomes for students with BD have been found to be more dependent on the quality of the setting rather than the type of setting (Reid et al., 2004). These findings, and those contributed by Hooper et al. (2000) and Lyons et al. (2001) illustrate the difficulty in determining the most effective environment in which to teach students with BD. Researchers postulate that students with disabilities,

including those with BD, who have access to general education curriculum taught by a highly qualified teacher, are more likely to make academic gains, potentially breaking the cycle of academic struggles and challenging behaviors (Bradley, Doolittle, & Bartolotta, 2008). However, students with BD who are educated in substantially separate settings are more likely to experience an increase in externalizing and internalizing behaviors and a decrease in academic skills (Bradley, Henderson, & Monfore, 2004). Therefore, it is likely that the positive social, emotional, and behavioral development of all students, especially those with BD, is based not on the level of restriction of the educational setting, but rather it is the quality of the teacher and the interventions they implement, in addition to the quality of school and classroom climate that supports the positive social, emotional, and behavioral development of all students.

### **Inclusive Education**

The Education for All Handicapped Children's Act of 1975 (EAHCA) was reissued as the Individuals with Disabilities Act (IDEA) in 1997 and updated in 2004. This legislation mandates that all children, regardless of ability, are entitled to a free and appropriate public education (FAPE) in their least restrictive environment (LRE). With the passage of these laws, in conjunction with attention to civil rights, social politics, and related court cases (e.g., *PARC v. Pennsylvania*, 1972, *Mills v. D.C. Board of Education*, 1972), the inclusion of students with disabilities in the general education classroom has become a significant educational trend. Inclusive education is evidence of school reform, exemplifies a progressive society, and continues to define special education program initiatives. The shift toward inclusion provides greater opportunities to individuals with

disabilities and has proved beneficial for both students with and without disabilities (Hunt & Goetz, 1997, Lipsky & Gartner, 1996).

As of 2016, there are 6,464,000 students served by public schools under the protection of IDEA (National Center for Educational Statistics, 2016, see Appendix A denoting student disability types and their educational programs). For decades, educators have been steadily refining special education methodology, investigating sound principles and research-based curricula that are deemed effective for students with disabilities, and advocating for children and families. The effectiveness of inclusive education, however, is still an understudied area, especially regarding programs that include students with BD. Most previous research has not distinguished among different types of disabilities or has only focused its analysis on a single disability type. Furthermore, research suggests that some disabilities (e.g., behavior disorders) are more detrimental than others to students' abilities to function in school (Bradley et al., 2008; Kern, Hilt-Panahon, & Sokol, 2009).

Schools must be safe and supportive of students' socio-emotional wellbeing and adjustment in order to be conducive for learning (Cohen, McCabe, Michelli, & Pickeral, 2009). However, there are competing factors that influence teachers' ability to commit time and energy to creating classrooms that foster all students' socio-emotional wellbeing, especially with the increased attention devoted to testing and academic achievement. As a result, teachers may spend more time focused on immediate learning outcomes and less on classroom climate (Pierce, 1994), which may have consequences for students' pro-social development and academic achievement, especially in schools that include students with BD.

The little research that exists concerning inclusive climates and students with BD suggests that both the academic and non-academic outcomes of classmates are negatively impacted by the inclusion of students with BD (Carrel & Hoekstra; 2011; Figlio, 2007; Fletcher, 2010; Gottfried, 2014). Fletcher (2010) examined the relationship between student achievement on math and reading tests and the presence of a classmate with serious emotional problems. Results indicated that students who had a classmate with an emotional problem scored approximately 10% lower on math tests and 12% lower on reading tests than students who did not have a classmate with an emotional disorder. Similarly, Gottfried (2014) found that students with a greater number of classmates with externalizing and internalizing behavioral problems exhibited decreased self-regulation, academic engagement, and interpersonal skills, when compared to students in classrooms without peers with a BD. These findings are consistent with the results of a study by Koth, Bradshaw, and Leaf (2008), who suggest that the presence of aggressive students shift the social norms of the classroom such that anti-social behaviors become socially acceptable among other students. Together, these findings suggest that the inclusion of children with BD in general education classrooms may be an important factor to consider when examining perceptions of school climate. Indeed, students with BD may moderate the relationship between school climate and academic outcomes.

### **Theoretical Frameworks**

Elementary schools are complex environments that contain many dynamic systems (student-teacher relationships, student-student relationships, teaching and learning styles, etc.) that interact and reciprocally affect one another. To effectively

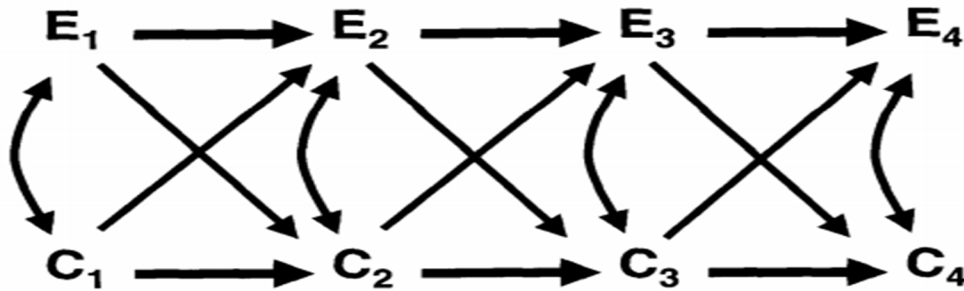
investigate the climate of elementary schools and classrooms, empirical work must be grounded in psychological or sociological theory. This study draws on two theoretical frameworks to consider the association of school climate and student academic outcomes in inclusive classrooms for students with behavior disorders: Bronfenbrenner's (1979) ecological systems theory and Sameroff's (1975) transactional model. These two theoretical frameworks were chosen because both adopt an interactional model where individuals and their environment are engaged in a continuous cycle of influence.

Bronfenbrenner's (1979) ecological systems theory provides a framework for understanding how the school environment affects and is affected by the behaviors of students and teachers and impacts student functioning. According to Bronfenbrenner (1979), each environmental system is comprised of four layers: the microsystem (environmental structures with which the individuals have direct, face-to-face contact such as school and peer group), the mesosystem (the interaction effect between structures in the microsystem), the exosystem (the larger social system that defines policies), and the macrosystem (the overarching values of society). Indeed, teachers and students not only influence the quality of school and classroom climate, but are also influenced by that climate they help to create.

Additionally, Sameroff's (1975) transactional model provides a framework for understanding the interaction effects between teachers and students, a central element of school and classroom climate. The transactional model assumes that the contact between an individual and their environment is a transaction, which is to say that both elements are influenced and altered by the other (see Figure 2 for an illustration of Sameroff's

transactional model). These transactions are punctuated by a change in the behavior of one, because of the behavior of another. For example, when one person's smile is reciprocated by a frown, the former may become confused and experience an increase in negative emotions (Sameroff & MacKenzie, 2003). Employment of this model is most useful when examining different perceptions of school climate because it supports the hypothesis that the effects of teacher and student interactions may not only be perceived differently, but may cause a change in how the teachers and students perceive their school climate in general. Indeed, both ecological systems theory and the transactional model reject linear chains of causality when studying human behavior and adopt an interactional model where individuals and their environment are engaged in a continuous cycle of influence.

Teachers and students contribute to the social context of the school environment by reflecting school norms in their classroom practices and routines. When challenging behaviors are part of the school and classroom environments and threaten to diminish a positive climate, teachers employ strategies to support the development of pro-social behaviors. As such, teachers providing feedback to students who exhibit challenging behaviors are not only supporting the students with BD, but also modeling effective responses for the rest of the students and offering a learning opportunity within the social context of the school and classroom. In the context of this study, Bronfenbrenner's (1979) ecological systems theory and Sameroff's (1975) transactional model were used as foundations from which to examine perceptions of school climate, its relationship with academic outcomes, and the moderating effects of including students with BD.



*Figure 2.* Sameroff's (2009) transactional model with continuities in child and environment

### **School Climate**

School climate is a multidimensional and complex social structure that affects children's social, emotional, and academic development (Roeser, Eccles, & Sameroff, 2000). Though there are many different definitions of school climate, it is currently and most frequently referred to as "the quality and character of school life that is based on patterns of people's experiences and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" (Cohen et al., 2009, p. 182). According to Cohen et al. (2009), a sustainable, positive school climate fosters youth development and learning necessary for a productive, contributive, and satisfying life. This climate is built on the norms, values, and expectations that support people feeling socially, emotionally, and physically safe in school.

Positive school climate is associated with various student outcomes, including academic achievement and performance (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; MacNeil et al., 2009;), better attendance (Brand et al., 2003), adaptive psychosocial adjustment (Kuperminc, Leadbeater, & Blatt, 2001; Roeser, Eccles, & Sameroff, 1998), satisfaction with school (Loukas, Suzuki, & Horton, 2006), sense of belonging at school

(Sherblom et al., 2006), motivation to learn (Battistich, Solomon, Kim, Watson, & Schaps, 1995), and pro-social behavior (Fan, Williams, & Corkin, 2011). Furthermore, students who perceive their school climate to be positive are less likely to engage in externalizing or aggressive behaviors (Espelage, Bosworth, & Simon, 2000). It is, therefore, particularly important to assess the quality of school climate in schools that include a relatively large percentage of students with BD.

Factors associated with school climate are closely related to and often overlap with factors associated with classroom climate. Classroom climate refers to the “global classroom atmosphere and the degree to which the classroom as a whole functions smoothly and harmoniously” (Gazelle, 2006, p. 1180). Elements of classroom climate consist of the nature of interactions (positive or negative); the quality of student-teacher relationships; the quality of peer relationships; levels of disruption, conflict, and organization; and teacher classroom management style (Allodi, 2010; Gazelle, 2006). These factors are shaped by the behaviors of both students and teachers.

Studies have found that there is a relationship between teacher perceptions of school climate and student perceptions of classroom climate (Aldridge, Fraser, & Laugksch, 2011; Fraser & Rentoul, 1982), emphasizing the overlap and linkage of school and classroom climates. Consistent with Sameroff’s (1975) transactional model, researchers have postulated that teachers reflect the impact of school climate in their classrooms, which has a direct effect on students (Koth et al., 2008), thus making school climate factors relevant at the classroom level. According to Koth et al. (2008), the complexity of classroom dynamics is similar to those at the school level “in that they

involve the relationships and interactions between teachers and students, among students, and the perceptions, attitudes, and behaviors of students and teachers within the classroom” (p. 97). Furthermore, based on the findings from their study examining differences in climate perceptions between teachers and their students, Mitchell et al. (2010) suggest studying school-level factors in order to improve student perceptions of climate.

Student perceptions of school climate may be reflective of their exposure to anti-social or aggressive behaviors in their classrooms (Koth et al., 2008). When students who demonstrate challenging or anti-social behaviors are clustered within classrooms, they may have a negative influence on the classroom environment and affect all students’ overall perception of the school climate (Bronfenbrenner & Ceci, 1994).

**Including Students with BD and School Climate.** Maintaining a positive school climate may be challenging when students who exhibit challenging behaviors are included in general education classrooms. For example, students with BD can create emotionally challenging situations for teachers. One study showed that teachers working in classes with students with BD experienced higher levels of stress, which negatively impacted the academic performance of all students (Marzano, Marzano, & Pickering, 2003). Students who present with emotional dysregulation, HAB, anger, aggression, and other anti-social behaviors are reportedly more likely to have relational conflicts with their teachers (Buyse, Verschueren, Doumen, Van Damme, & Maes, 2008; Hughes et al., 2001) and decreased pro-social behaviors with peers (Birch & Ladd, 1998; Ladd, Birch, & Buhs, 1999). This disruptive behavior can negatively impact a teacher’s relationship

with all children in the classroom (Mantzicopoulos, 2005) and can interfere with his or her teaching (Zhang, Morgan, & Musu-Gillette, 2015). Indeed, externalizing behaviors can be very disruptive to classroom routines and have the potential to shape the climate of the classrooms and the school as a whole.

Conversely, low levels of conflict and disruptive behaviors are characteristics of supportive climates (Hamre & Pianta, 2005; Jennings & Greenberg, 2009; Pianta & Hamre, 2009), and teachers who develop supportive academic and emotional relationships with their students increase the health of the classroom climate (Jennings & Greenberg, 2009) and decrease student risk of school failure (Dornbusch, Erickson, Laird, & Wong, 2001; Hamre & Pianta, 2005). In addition, students who have supportive relationships with their teachers report feeling safe and connected with peers, which is linked to higher academic outcomes (Jennings & Greenberg, 2009). Indeed, the classroom teacher has strong influence over the establishment of a positive school climate. Research on successful educational programming for students with emotional and behavioral disorders emphasizes that specialized interventions implemented by the classroom teacher can influence the climate, facilitating a more positive emotional atmosphere, and altering the transactions between students and teachers as well as those among students (Simpson, Peterson, & Smith, 2011). Furthermore, researchers postulate that the most effective teachers of students with BD, and potentially all other students, are those that forge trusting and positive relationships with their students (Simpson, 2004). In doing so, a positive climate is fostered (Mihalas et al., 2009) and students may be less likely to engage in externalizing or aggressive behaviors (Goldweber, Waasdorp, &

Bradshaw, 2013; Wienke Totura, MacKinnon-Lewis, Gesten, Gadd, Divine, Dunham, & Kamboukos, 2009). Therefore, teachers who are provided with adequate training and support in maintaining a pro-social, positive climate may be able to improve the educational outcomes for all students, specifically those with BD.

**Measuring School Climate.** To address factors that influence school climate, such as violence and bullying, states and school districts are making efforts to assess school climate as part of the Safe and Supportive Schools initiative. Funded by the US Department of Education, the National Center on Safe Supportive Learning awards grants to states that seek to improve the learning conditions of schools through measurement and program implementation. Many school districts utilize school climate surveys to facilitate this process. However, in their examination of state-level school climate assessment projects across the US, Cohen et al. (2009) found that only one out of the 29 states participating used a valid and reliable measure. This is reflective of the limited availability of reliable and valid school climate instruments that are available, despite the voluminous index of school climate measurement tools (see Kohl, Recchia, & Steffgen, 2013; Ramelow, Currie, & Felder-Puig, 2015 for reviews). Indeed, many school districts create their own measures even though they have not been validated or deemed reliable. Additionally, even researchers performing studies on school climate do not always use a validated instrument and, subsequently, struggle with interpreting their results (see Mitchell, Bradshaw, & Leaf, 2010). Thus, selection of a reliable and valid instrument that measures school climate from the perspectives of students, teachers and staff continues to be challenging. This study will use The Delaware School Climate Survey (DSCS)

because it has been validated for both student and staff measurement scales (see Appendixes B–C for the DSCS subscales and items for both teacher and student versions).

### **Multi-Informant Approaches to Understanding School Climate**

Existing research that attempts to measure the quality of school climate has included a variety of instruments and techniques, such as direct observation, interviews, reviews of administrative reports (Clifford, Menon, Gangi, Condon, Hornung, 2012) and surveys (see Kohl et al., 2013 for a review). These tools have been used to determine the overall school climate, supporting the position that school climate is considered a group-level construct. However, whole school orientation is different from individual, personal orientation. Studying individual perceptions of school climate may offer valuable information about the quality of school climate (Wang & Degol, 2016), may provide teachers with meaningful feedback about their students' perceptions (Cantrell and Kane, 2013), and may provide an opportunity to study individual-level correlates. Students in the same school and in the same class may have very different ratings of school climate (Brand et al., 2003), and report differences in their quality of relationships with their teachers (Baker, 2006) and peers (Gest, Madill, Zadzora, Miller, & Rodkin, 2014). Similarly, teachers may also have very different perceptions of school climate, and different relationships with each student, especially when some students exhibit challenging behaviors. In fact, students and staff may perceive problematic peer behaviors and the effectiveness of adult intervention differently (Bradshaw, Sawyer, & O'Brennan, 2007). Bear, Gaskins, Blank, and Chen (2011) argue that individual

perceptions of school environments are a strong predictor of social, emotional, and academic outcomes. Indeed, research continues to show similar results: students who perceive their school and classroom environments to be positive, experience a stronger sense of school belonging, perceived academic competencies, higher achievement scores (Hughes, 2011), and fewer behavior problems (Gregory, Cornell, Fan, Sheras, Shih, & Huang, 2010).

Findings regarding the degree to which teachers and students agree on perceptions of climate, however, have been inconsistent. For example, multiple studies have found that students and teachers differ in their perceptions of school and classroom climate (Mitchell et al., 2010; Raviv, Raviv, & Reisel, 1990). In their study on student and teacher perceptions of school climate, Mitchell et al. (2010) found, surprisingly, that teachers were more sensitive to classroom-level factors, such as behavior challenges and classroom management, whereas students were more sensitive to school-level factors, such as principal turnover. In contrast, Espelage, Polanin, & Low, (2014) found that teachers' perceptions of school climate were correlated with student perceptions, specifically in their reports of bullying and victimization. The differences in results from these two studies emphasize the importance of examining student and teacher perceptions using a measurement tool that is able to make direct comparisons between and among these groups because comparing teacher and student perceptions of school and classroom climate is an important characteristic to consider when working to improve social, emotional, and academic outcomes of all students, especially those in inclusive schools.

**Teachers.** Research has shown that teachers' perceptions of school climate are

related to their job satisfaction (Ma & MacMillan, 1999), burnout and retention rates (Grayson & Alvarez, 2008), and their fidelity in implementing new academic curricula (Beets, Flay, Vuchinich, Acock, Li, Allred, 2008). In the current policy climate, student academic outcomes are often used to determine teacher effectiveness. Even if teachers believe that climate, environment, and atmosphere can influence student learning, it is rare for these elements to be included in procedures used to evaluate teacher effectiveness (Barile, Donohue, Anthony, Baker, Weaver, & Henrich, 2012). According to their empirical study on teacher-student relationships and school outcomes, Barile et al. (2012) found that only 7% of schools included student ratings of their relationships with teachers as part of the teacher evaluation process. Teachers may consequently choose to focus on student academic performance and outcomes over establishing a positive school and classroom climate, despite evidence suggesting that the quality of school and classroom climate and student academic performance influence one another (Bronfenbrenner, 1979; Hamre & Pianta, 2005; Sameroff, 1975).

Teacher behaviors may influence the emotions students experience in school (Sameroff, 2000; Sutherland & Oswald, 2005). Take, for example, the following statement from a teacher, first published in 1971 by Ginott and quoted by Fraser in 2001:

I've come to a frightening conclusion that I am the decisive element in the classroom. It's my personal approach that creates the climate. It's my daily mood that makes the weather. As a teacher, I have a tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humour, hurt or heal. In all situations, it is my

response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized. (Fraser, 2001, p. 4)

This example illustrates the fragility of the dynamic relationship between student and teacher, especially when students with BD are included in the school and classroom. Sameroff's transactional model (2000; Sameroff & Mackenzie, 2003) provides a framework for understanding these transactions.

As mentioned earlier, Sameroff's transactional model describes development as a product of the interaction between the child and their environment. In schools and classrooms, for example, the type and quality of interactions between teachers and students are continuously shaped by one another. These interactions might be complicated by the presence of students with BD who are more likely to present with decreased engagement and disruptive behaviors (Sutherland, 2005). According to Sutherland (2005), "teacher perceptions, students' classroom behaviors, and teacher responses to those behaviors interact dynamically, producing a cycle that confirms and strengthens those perceptions" (p. 7). Because the quality of teacher-student relationships are not only cyclical, but also a central element of school and classroom climate, it is important that teachers are mindful that their perceptions of the climate may differ from their students, especially those with BD.

**Students.** Students' perceptions also offer valuable information about the quality of school climate, especially their perceptions of school safety, social relationships, and school connectedness. Students, who perceived their school to strictly enforce fair and clear rules, also reported more supportive adult relationships (Gregory et al., 2010),

demonstrated academic success (Gietz & McIntosh, 2014), and had fewer reports of student delinquency and student victimization (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). In addition, students were more likely to trust school authority when they perceived the enforcement to be fair (Gregory et al., 2010). However, when the social norm of the school environment is accepting of externalizing behaviors such as physical and verbal aggression, students may perceive their school to be an unsafe environment and as a result, engage in aggressive responses themselves (Elsaesser, Gorman-Smith, & Henry, 2013).

Relationships between and among students, teachers, and administration are significant components of school climate. Students feel more comfortable and supported in schools and classrooms in which teachers are caring, respectful, and provide emotional support, they demonstrate higher self-esteem, a stronger attachment to their school, and are more likely to evidence self-regulation (Osterman, 2000). Furthermore, Hamre and Pianta (2005) found that at-risk children who had an emotionally supportive teacher experienced no greater relational conflict than their peers. When offered strong instructional and emotional support, students obtained higher achievement scores when compared to students placed in less supportive classrooms, an achievement gap that was especially prominent in at-risk students (Hamre & Pianta, 2005). Students who are active members of their school community, and as such, more connected to their school, are less likely to engage in risky behaviors and are more likely to have better academic outcomes (Hong & Espelage 2012). According to Battistich and Hom (1997), students who felt a higher level of school connectedness and sense of community were less likely to engage

in delinquent behaviors.

Fraser (2001) argues that children's individual perceptions of their learning environment is an important dimension of the lived experiences of children in schools. Using students' perceptions of their learning environment is a natural extension of the student cognitive paradigm (also referred to as the student-mediating paradigm). According to this paradigm, students' perceptions and interpretations of their own learning influence academic outcomes. In fact, these perceptions may have more of an impact on outcomes than the quality of teaching behaviors (Waxman, 1991). Students who believe they are well liked by their teachers and have closer relationships with them tend to receive better grades than those who do not. Moreover, positive teacher-student relationships can serve as a protective factor for children with BD (Baker, 2006). However, students may perceive their relationship with their teachers to be more positive or more negative than their teachers' own perceptions of the quality of these relationships.

The majority of research on perceptions of climate has utilized teachers' reports as their primary measure (Birch & Ladd, 1997; Pianta, Steinberg, & Rollins, 1995; Saft & Pianta, 2001) even though students and teachers may differ in their perceptions of climate (Hughes, 2011). Hughes (2011) suggests that the reasons researchers have focused on teacher and not student perceptions is because children's self-concepts tend to be reflective of their global and past school experiences, rather than specific classroom-level factors and reflect a positive rating bias due to their desires to please adults. However, empirical studies from research on student self-efficacy demonstrate the value of

examining student perceptions. This research suggests that students' perceptions of academic competence are a significant predictor of achievement (Roeser et al., 2000). Lorschach and Jinks (1999) argue that students' beliefs about their own academic competency could have significant implications for improving learning environments if the concept of self-efficacy was incorporated into research on school and classroom climate. Moreover, students' perceptions of the quality of their relationships with their teachers predicted changes in students' perceived academic competencies, sense of school belonging, and math achievement. These findings suggest that students with positive perceptions of support, regardless of teacher perceptions, are more likely to perceive themselves as academically capable and belonging to the school. Therefore, understanding student perceptions in relation to teacher perceptions has significant value in determining the quality of school climate at individual levels.

## **Conclusion**

The purpose of this literature review was to: 1) demonstrate the gap in current empirical literature on the relationship between school climate and student academic outcomes when students with BD are included and 2) argue the importance of examining multi-informant perceptions of school climate. Review of the research on behavior disorders and inclusive education provides a foundation for this study. Two theoretical frameworks offer a lens through which to examine the interactions between teachers and students within a school climate: Bronfenbrenner's ecological theory and Sameroff's transactional model. A discussion of school climate and the importance of examining this construct using multiple informants support the rationale for this study. The present study

will contribute to the current literature by gathering empirical data pertinent to investigating the relationship between perceptions of school climate and student academic outcomes when schools fully include students with BD.

### **Research Questions**

This research study considers the relationship between classroom climate and academic outcomes in elementary classrooms that include students with BD through a mixed methods design involving surveys, interviews, observations, an analysis of school documents, and an analysis of student academic outcomes. The following research questions guide this investigation:

1. What characterizes the climate in an elementary school that includes students with BD?
2. To what extent is there agreement between teacher and student perceptions of school climate in an elementary school that includes students with BD?
3. To what extent are student perceptions of school climate associated with academic outcomes, when controlling for individual-level demographic factors? To what extent does having a BD moderate the relationship between school climate and student academic outcomes?

## CHAPTER 3

### RESEARCH METHODOLOGY

#### **Research Design**

**Site: The Monroe Elementary School.** The Monroe Elementary School is an urban elementary school with a unique history. Until 2009 Monroe housed three substantially separate classrooms for students with BD. Clustering students with BD in substantially separate classrooms in identified elementary school buildings was then, and continues to be, the traditional programmatic option for students with BD. However, at the Monroe, with the induction of a new principal in 2009 Monroe's faculty and parent community agreed to integrate into the general education classrooms students with BD who were previously educated in substantially separate classrooms located on the school's basement level. Currently, ten teachers educate students from diverse cultural and financial backgrounds who exhibit a range of social, emotional, and academic competencies. The school serves students in Grades PreK–5 (approximately 160 students total) with an average class size of 24 students. Twenty-five percent of these students are considered low income. Students are approximately 20% African American, 30% Latino, 10% Other Race, and 40% White. Grades PreK–2 are staffed with a general education teacher and a paraprofessional. Grades 3–5 are staffed with a general education teacher, a special education teacher, and a paraprofessional. Since 2012 the school has improved its scores on state testing, now earning the highest performance status according to state requirements (see Figures 3–5; note that in 2015, the state adopted a new type of standardized assessments with different scoring criteria). Approximately thirty-five

percent of students in the school are identified as having a disability, many of which are identified with BD.

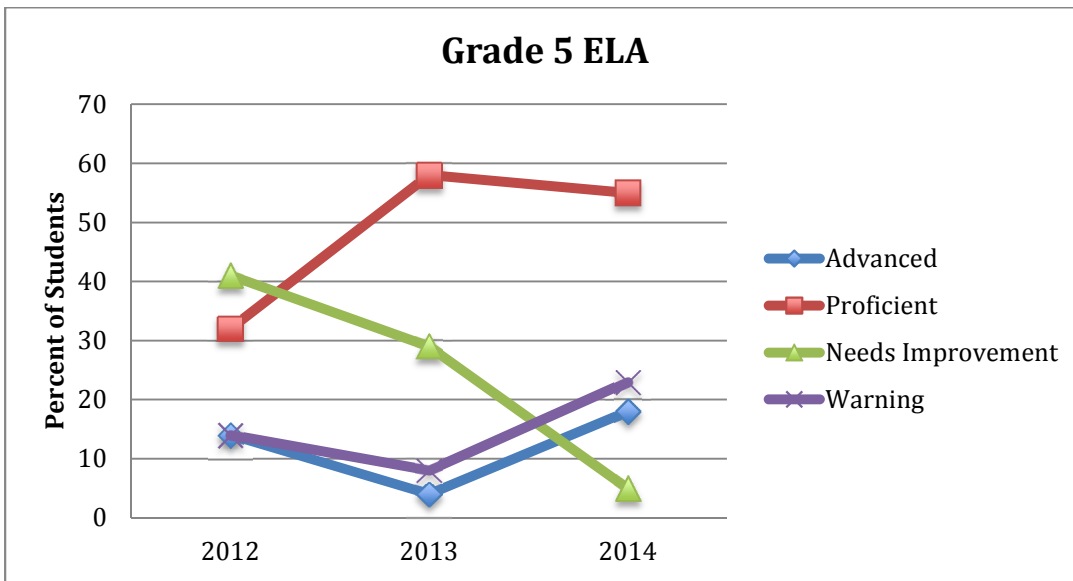


Figure 3. Annual Comparisons for Grade 5 State Standardized Scores in ELA, The Monroe Elementary School

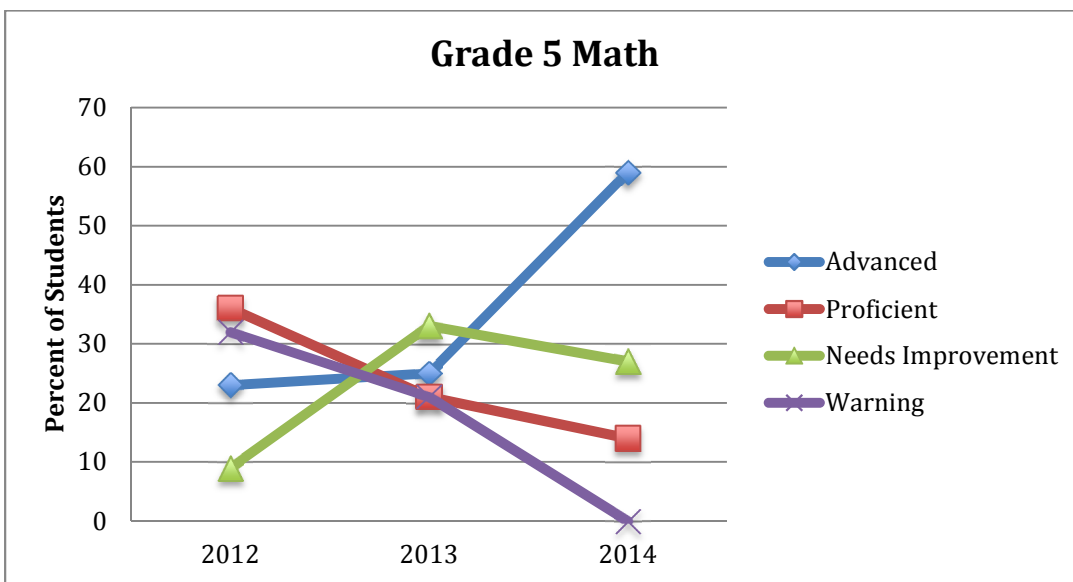
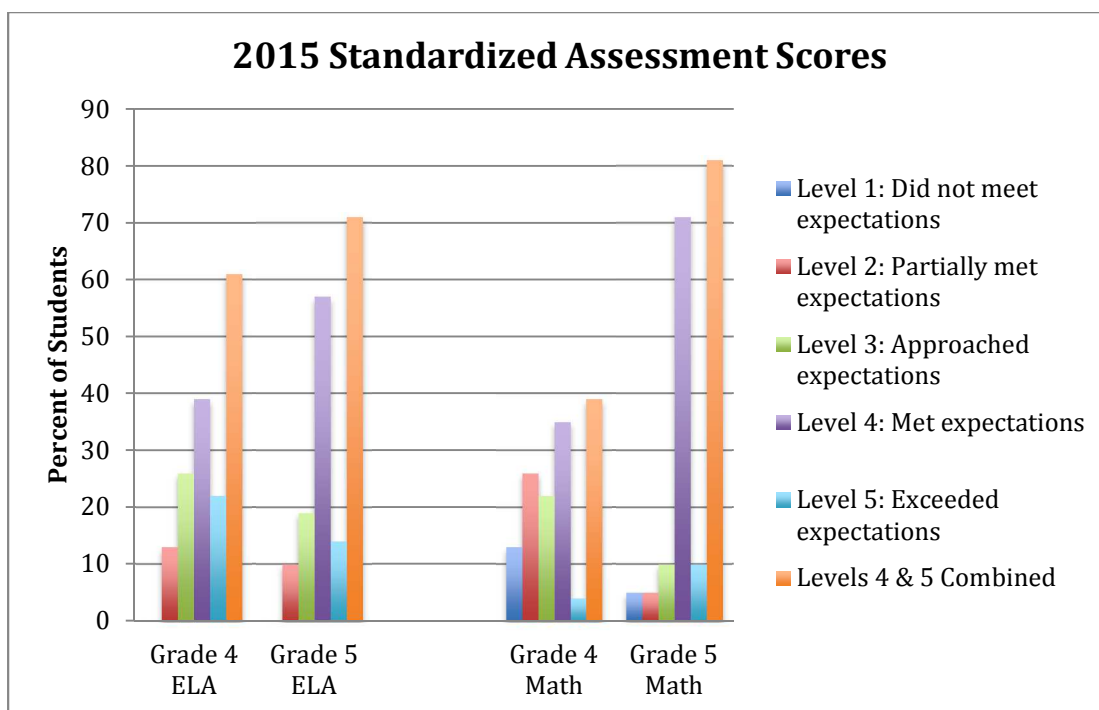


Figure 4. Annual Comparisons for Grade 5 State Standardized Scores in Math, The Monroe Elementary School



*Figure 5: 2015 State Standardized Assessment Scores in Grades 4 & 5 for ELA and Math, The Monroe Elementary School*

The Monroe has an instructional focus on higher order thinking skills and an inclusion program that supports success for all children. The small school size allows teachers to develop meaningful relationships with students in order to individualize instructional strategies that support critical thinking and provide students with social, emotional, and behavioral support. An active parent council, the adoption of social emotional curricula (e.g. Responsive Classroom), and a partnership with a local hospital support the Monroe.

The primary mission of the Monroe is to provide all children with a quality education through excellent teaching. Teachers meet weekly to review data, analyze student work, and collaborate on lesson planning in order to improve the quality of their instruction. As a result, teachers deliver challenging lessons while differentiating

instruction to make sure that every student either reaches or makes progress toward the learning standard.

The school's values include ensuring that every child feels connected to their school community. The Monroe School is built on the belief that social, emotional, and academic development are intertwined, and that faculty is mindful of interactions with children, understanding that behavior is partially a function of a student's experience in school. These values guide their philosophy that general and special education students should come together with the same goal: that every student experiences academic, social, and emotional success. Staff at the Monroe School believe that all children can and want to succeed at high levels, that there are more opportunities for excellence when every voice is included and supported, that students learn from each other, that all children can succeed in an inclusion setting, and that inclusion offers powerful opportunities for academic, social and emotional growth for every student.

The foundation of these guiding principles is Responsive Classroom (<https://www.responsiveclassroom.org/>). Responsive Classroom is a program that emphasizes social, emotional, and academic growth in a strong and safe school community. It is based on the premise that children learn best when they develop both academic and socio-emotional skills. Responsive Classroom implementation consists of interventions both at the classroom and school level, which are designed to help children build academic and socio-emotional competencies.

**Sample.** This study examined the school climate by surveying students with and without BD in Grades 3–5, and general and special education teachers in Grades 3–5. In

addition, teachers, key administrative staff, including the principal, the building-based special education administrator, and the school's administrative assistant were interviewed to understand how they characterize their school's climate. Various activities in the school, including staff meetings, classrooms, and general building-based activities, were observed. Finally, school documents were collected, reviewed, and analyzed to provide a rich description of the school's climate.

Of the 79 students in Grades 3–5, 59% ( $N=46$ ) returned a consent form indicating parental permission to participate in the study. Among these students, 17 were in Grade 3, 14 were in Grade 4, and 15 were in Grade 5. One student was absent the day of survey administration and two students' responses were removed because they skipped 5 or more questions on the survey. A final sample included 43 students in Grades 3–5 (Table 4). In addition, of the six teachers in Grades 3–5, 100% ( $N=6$ ) consented to participate and among the three administrators asked to participate, 100% ( $N=3$ ) consented.

**Recruitment methods.** All students and teachers in Grades 3–5, and three administrative staff were recruited for participation. After the Boston University Institutional Review Board gave full approval for this study, approval from the school district that oversees the operations of the Monroe was sought and obtained. The researcher and the Monroe principal worked together to hold informational sessions for the parents of students in Grades 3–5, and for teachers to provide them with an overview of the study, discuss consent, and answer any questions. Approximately 12 parents (7% of total) attended the information session and all elementary teachers attended. A recruitment letter was provided to all parents and teachers in Grades 3–5 introducing the

project and informing them that they would be asked to sign consent for participation (see Appendixes D – G). All six teachers consented to participation in the study, however, two declined to be audio-recorded during the interview phase.

### **Measures**

Data for this study were collected in late spring, 2016. Data collection included semi-structured interviews, participant observation over two school days, document analysis, surveys, and questionnaires. The following section outlines measures used and how each one informs the research questions.

First, to understand what characterizes the climate in the Monroe, interviews, observations, and document analyses were completed. The purpose for using these three different data sources was to increase the validity of the information obtained (Patton, 2002). According to Wang and Degol (2016), interviews can capture elements of school climate that can be overlooked through survey analysis. They argue that pairing survey data with qualitative measures, such as interviews and observations, can be effective in attaining a more complete understanding of a school's climate.

**Interviews.** To understand how teachers and administrators maintain a positive school climate, general and special education teachers from Grades 3–5 and three school administrators were interviewed. Interview questions (Appendixes I & J) were broad to leave space for participants to guide the discussion, while building rapport (Daley, 2015). As rapport developed, more direct questions were asked about how teachers perceived the ways they foster a positive school climate. Interviews were transcribed and coded for themes.

**Observations.** Participant observation, over two school days, was used to record factors associated with the Monroe's school climate. Angrosino (2007) describes the observer-as-participant role as a researcher who is known and recognized by the subjects but relates only as a researcher. The role is further explained as researcher who is identified by subjects as an "insider" but does not participate in any activities within the natural environment. During these visits, ethnographic notes were taken during observational research and then coded for themes.

**Document analysis.** School documents, such as newsletters and memos related to the mission statement and school values were collected for analysis of school climate characteristics. According to Patton (2002), document analysis is a valuable measure in qualitative research because it can provide the researcher with information about a phenomenon that cannot be obtained through observations or interviews. Additionally, specific documents may reveal information that took place prior to the research project, allowing access to otherwise unavailable information such as faculty meeting notes and internal school safety plans. The Monroe faculty provided documents from the entire 2015–2016 school year (e.g. grant applications, newsletters, meeting notes). These documents were analyzed and coded for themes.

**Behavior disorders.** Two methods were used to assess student behavior problems in order to classify students as having a BD. First, teachers completed the Child Behavior Scale for each student in their class (CBS; Ladd & Profilet, 1996). Second, student disability status, as determined by the Monroe, was acquired through administrative records. Using these two methods ensured that all students who exhibited externalizing

behaviors were classified as having a behavior disorder and not just those classified as receiving special education via a specific diagnosis.

*Child Behavior Scale.* The Child Behavior Scale, is a 59-item, teacher report inventory, that was developed to gather information about children's behaviors and contains the following 6 subscales: aggressive with peers; prosocial with peers; asocial with peers; anxious-fearful; excluded by peers; and hyperactive-distractible. A 3-point response scale accompanies all items on the CBS where teachers are instructed to rate the behavior described in each item in terms of how applicable each characteristic is for each student they are rating. Scaled points are labeled and defined as: 1=*doesn't apply* (child seldom displays the behavior); 2=*applies sometimes* (child occasionally displays the behavior); 3=*certainly applies* (child often displays the behavior). All six subscales have moderately-high to high internal consistency estimates, with coefficients ranging from  $r = .77$  to  $r = .96$ . Each subscale yields scores that are internally consistent, distinct from other subscales, and relatively stable over time. Ladd and Profilet (1996) reported significant correlations of the two scales with observational ratings of children's aggressive behavior (Prosocial with Peers,  $r = -.19$ ,  $p < .01$ ; Aggressive with Peers  $r = .39$ ,  $p < .001$ ) and prosocial behavior (Prosocial  $r = .23$ ,  $p < .01$ ; Aggressive  $r = -.19$ ,  $p < .01$ ) during free play periods at school, and with aggression (Prosocial  $r = -.45$ ,  $p < .001$ ; Aggressive  $r = .71$ ,  $p < .001$ ) and withdrawal (Prosocial  $r = -.35$ ,  $p < .001$ ; Aggressive  $r = .08$ ) scores on the Teacher Report Form, the teacher version of Achenbach's Child Behavior Checklist.

**Perceptions of school climate.** Students and teachers completed complementary forms of the School Climate subscale of the Delaware School Climate Survey (DSCS; Bear et al., 2011; see Appendixes B & C) to assess school climate. As shown in Tables 1 – 2 the School Climate subscale of the DSCS has demonstrated strong internal reliability and validity for both the teacher and student versions based on a sample from the state of Delaware.

The DSCS is grounded in authoritative discipline theory and was designed to assess responsiveness and structure in schools from the perspectives of students, teachers, staff, and parents. According to authoritative discipline theory, children’s developmental needs are met through two components: structure and responsiveness. Structure includes the establishment of clear rules, methods for monitoring student behavior, and the enforcement of rules consistently by peers and adults (Baumrind, 1996; Gregory et al., 2010). Responsiveness (also referred to as social support) refers to the quality and frequency that adults and peers respond to the social and emotional needs of children. Teachers and administrators employ clear behavioral expectations yet also support children with warmth and encouragement (Bear & Yang, 2011). Furthermore, authoritative discipline supports the development of a positive emotional climate where students are responsive to efforts to uphold school rules and manage anti-social behaviors (Gregory et al., 2010).

The DSCS offers student and teacher surveys that consist of three parts. Part I assesses school climate; Part II assesses respondents’ perceptions to the extent to which three types of techniques are used in the school to manage student behavior and develop

social, emotional, and behavioral competencies; and Part III consists of school engagement. This study administered Part I, which is the measure of school climate. This scale assesses the respondent's perceptions of teacher-student relationships, student-student relationships, fairness of rules, clarity of expectations, school safety, and respect for diversity. The teacher survey has an additional subscale assessing teacher-home communication. A total school climate score is derived for each of the two surveys by summing scores across all School Climate subscales.

The DSCS, a publically available survey, was chosen for its readability level (Grade 2 reading level) and its brevity, which limits the amount of class time taken to administer the survey and acknowledges the range of children's attention spans. The DSCS manual also provides comparison data from a representative sample of students and teachers from the state of Delaware. Using both the teacher and student versions of the DSCS offers a multi-method system for assessment of school climate through which comparisons between and among student and teacher perceptions of school climate can be made. As shown in Table 3, the School Climate subscale of the DSCS has demonstrated strong internal consistency reliability for both the teacher and student versions based on the Monroe sample. There were two scales where teachers demonstrated lower reliability (i.e. teacher-student relations and student-student relations). This was most likely due to the very low number of teacher participants.

Table 1

*Reliability coefficients from the manual for Part I of the DSCS, student and teacher versions: School Climate, Delaware sample (Bear & Yang, 2011)*

		Teacher- Student Relations	Student- Student Relations	Respect for Diversity	School Safety	Clarity of Expectations	Fairness of Rules	Total School Climate
Elem. Students	N= 18,448							
Third	n=5299	.70	.80	.76	.65	.57	.64	.89
Fourth	n=5180	.75	.83	.79	.70	.65	.73	.90
Fifth	n=5436	.82	.87	.85	.75	.75	.80	.93
Elem. Teachers	N=3,396	.84	.89	.85	.87	.89	.82	.96

Table 2

*Concurrent Validity: Correlations between school climate and academic achievement and suspensions/expulsions for student and teacher versions, Delaware sample (Bear & Yang, 2011)*

<u>School Climate Subscales</u>	<u>Elementary Students</u>			<u>Elementary Teachers</u>		
	<u>ELA</u>	<u>Math</u>	<u>S/E</u>	<u>ELA</u>	<u>Math</u>	<u>S/E</u>
Teacher-Student Relations	.54	.56	-.52	.50	.53	-.53
Student-Student Relations	.54	.55	-.54	.68	.69	-.77
Respect for Diversity	.63	.62	-.52	.50	.53	-.49
School Safety	.63	.64	-.53	.64	.66	-.65
Clarity of Expectations	.44	.47	-.41	.50	.56	-.46
Fairness of Rules	.60	.55	-.41	.57	.62	-.52
Teacher-Home Communications*	-	-	-	.59	.60	-.56
Total School Climate	.62	.62	-.54	.62	.65	-.64

\*Note. The Teacher-Home Communications subscale is only in the teacher version of the DSCS.

Table 3

*Reliability coefficients for Part I of the DSCS, student and teacher versions: School Climate Scores, Monroe Sample*

		Teacher- Student Relations	Student- Student Relations	Respect for Diversity	School Safety	Clarity of Expectations	Fairness of Rules	Total School Climate
Students	N=43	.80	.78	.60	.64	.73	.81	.91
Teachers	N=6	.47	.55	.78	-	.83	.81	.85

**Academic outcomes.** District Determined Measures (DDMs) are measures of student learning, growth, or achievement in English Language Arts (ELA) and Math. They provide timely feedback to educators about student learning across the full range of content areas. In this study, ELA and Math DDMs were used instead of end of year state standardized assessments. DDMs were chosen because they (1) provide individual information about student academic performance; and (2) results are administered multiple times a year and are therefore, a better reflection of student performance and current school climate. In contrast, state standardized testing results are only administered once a year and therefore do not provide an opportunity to assess their association with current school-year climate. DDM data from the spring of 2015, fall of 2015, and winter 2016 were obtained from administrative records. Analyses controlled for spring 2015 scores, which were collected prior to the school year in which data were collected.

### **Sociodemographics**

Teachers were asked to report their teaching assignment (special or general educator), the grade they teach, their race, and their gender. Students were asked to report their grade and gender. Socio-economic status was measured using data on student eligibility for Free and Reduced Meals (FARMS) and was retrieved from administrative records along with student disability status and race (Table 4). These variables were included as controls in analyses examining the relationship between perceptions of classroom climate and academic outcomes.

Table 4

*Student Demographics*

Variable	Grade 3		Grade 4		Grade 5		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>
Gender								
Male	33.3	5	46.2	6	66.7	10	48.8	21
Female	66.7	10	53.8	7	33.3	5	51.2	22
Race								
African American	33.3	5	7.7	1	20.0	3	20.9	9
Asian	6.7	1	0.0	0	6.7	1	4.7	2
Hispanic	33.3	5	38.5	5	6.7	1	25.6	11
White	26.7	4	46.2	6	66.7	10	46.5	20
Other	0	0	7.7	1	0	0	2.3	1
FARMS								
Yes	60.0	9	46.2	6	33.3	5	46.5	20
No	40.0	6	53.8	7	66.7	10	53.5	23
IEP for EI*	13.3	2	7.7	1	13.3	2	11.6	5
Total	100	15	100	13	100	15	100	43

\* EI is an abbreviation for Emotional Impairment. The Monroe's school district uses this classification to label those students who meet criteria for special education under IDEA and state law.

**Data collection procedures**

The data used in this study were obtained from the students ( $N=43$ ) and teachers ( $N=6$ ) in Grades 3–5 at the Monroe Elementary School in late spring 2016. This methodological process took eight weeks to complete and included the following stages.

During stage one, information sessions for teachers and parents were held. During these sessions, the purpose of the study, the methodological process, and efforts to ensure confidentiality was discussed. Individuals were provided opportunities to meet or speak with the researcher at a time convenient to them. Teachers and parents were given a recruitment letter (Appendixes D & E) and consent form (Appendixes F & G). All six teachers consented to participation in the study, however, two declined to be audio-recorded when interviewed. Efforts to obtain parent consent for student participation

occurred during five phases over the course of eight weeks. Phases one and two consisted of sending home copies of the consent form with children through their backpacks in addition to announcements made to parents through the school newsletter. Phases three and four consisted of mailing home a copy to all students who had not returned a consent form during phase one or two, in addition to sending another copy home with students through backpacks. Phase five consisted of a final distribution through student backpacks to all those who had not returned a consent form with an added incentive for pencil prizes and entry into a lottery for families to win one of two \$100 gift cards to Amazon.com if they returned a consent form.

During stage two, teachers were emailed and provided with a unique numeric code assigned to them as well as to their students. They were also provided with links to access electronic versions of the Child Behavior Scale and the teacher version of the DSCS. The researcher checked for responses twice a week (for a period of four weeks) and sent reminders to those who had not completed all questions. All teachers completed all surveys. Access to the survey was closed after eight weeks following the initial request. Also during this stage, 30-minute, one-to-one teacher and administrator interviews were scheduled, in addition to classroom and school observations held over two school days. Staff and administrators provided the researcher with documents they felt highlighted elements of their school's climate. Finally, student grades on district ELA and Math DDM assessments, disability status, race, and FARMS eligibility were obtained from school administration.

During stage three, paper surveys were administered to students in their classrooms. First, an assent form (Appendix K) was distributed to each student participating in the survey and the researcher read it aloud while students followed along. The survey was projected via an overhead projector and, to control for reading differences among students, the researcher read survey instructions and survey questions aloud. Teachers remained in their classrooms and the students who were not participating worked independently.

### **Data Transformation and Analytical Strategy**

**Question 1 Analysis.** To qualitatively investigate what characterizes the climate in a school that includes students with behavior disorders, both general and special education teachers in Grades 3–5 ( $N=6$ ) in addition to three building-based administrators ( $N=3$ ) were interviewed. All but two interviews were audio recorded and transcribed.

**Interview Process.** Interviews were held one-to-one using a semi-structured format. Participants were informed of the purpose of the study and were asked questions designed to acquire information about how they support the social, emotional, and academic needs of all students in their classroom, particularly those students with BD (Appendixes I & J). Additionally, teachers were asked to elaborate on how they had learned to establish a positive school climate. As the interviews proceeded and rapport was established, the interview questions were formulated based on previous responses and participants were asked to either provide examples of situations or elaborate on certain points, with the goal of discovering repeated patterns and to make meaning of them.

***Observation Process.*** Participant observations were conducted over the course of two school days. Each class in Grades 3, 4, & 5 were observed for 30 minutes in addition to general school events such as assemblies, passing periods, lunch, recess, and art. In addition, administrative meetings and a staff meeting were observed. These observations concentrated on methods and strategies either used to promote a positive climate or those that reflected the school's climate in general.

***Qualitative Analysis.*** To begin building a descriptive understanding of how teachers develop and maintain a positive school climate when students with BD are included, a thematic analysis of the interview transcripts was conducted (Braun & Clarke, 2006). In this approach, each interview was examined through multiple readings, identifying themes or patterns. It was assumed that there were common methods employed by teachers affording the opportunity to look for patterns and commonalities within their experiences using this method.

Following the steps outlined by Braun and Clarke (2006), each transcription was read in its entirety and then portions were chosen based on their relevance to the research question. Initial themes and patterns were identified and coded. The codes were then sorted, put into groups, collated, color-coded, and categorized. Once the categories and themes were identified, a thematic map (Figure 8) was constructed to represent each major theme and subthemes. Patterns were examined and analyzed across each set. The same codes were then used to analyze ethnographic notes from the participant observations and school documents.

**Question 2 Analyses.** Electronic responses of teachers' survey responses on the DSCS were downloaded. Student responses on the DSCS were entered into an electronic version of the survey and also downloaded. Questions pertaining to each subscale on the DSCS (Appendixes B & C) were summed and a mean score was derived. Descriptive statistics were used to determine measures of central tendency including mean and standard deviations for each of the School Climate subscales (teacher-student relations, student-student relations, safety, clarity of expectations, fairness of rules, respect for diversity, and total school climate score) for each student ( $N=48$ ) and teacher ( $N=6$ ). Next, a Spearman correlation ( $r_s$  or  $\rho$ ) was completed to determine the extent to which teachers and students agreed on their perceptions of school climate.

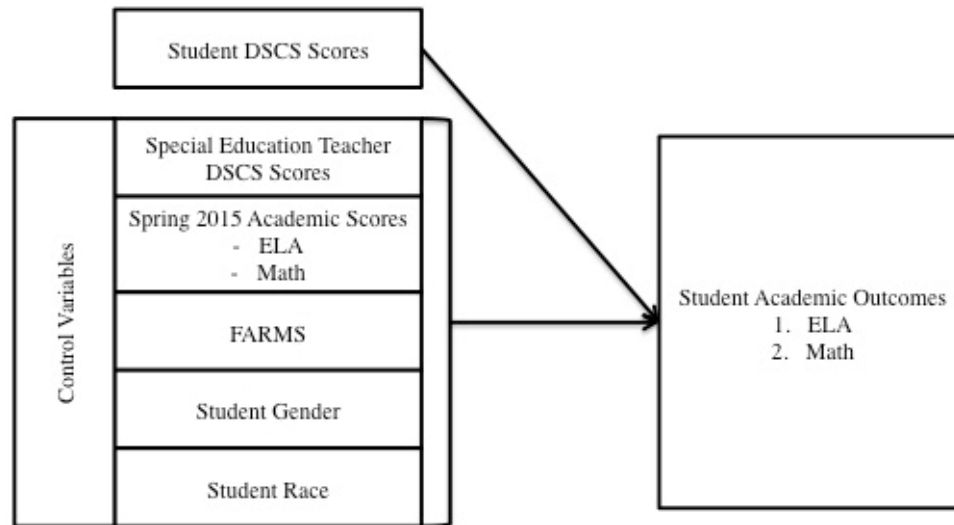
Spearman's correlation calculates the  $p$  value the same way as linear regression and correlation, except that it is done with ranked data. It is used when testing the association between one ranked variable (in this study, teacher scores on the DSCS) and one continuous variable (student scores on the DSCS). When using ranked data, the Pearson correlation coefficient ( $r$ ) is converted into the Spearman correlation coefficient ( $r_s$  or  $\rho$ ) and can be used to measure the strength of the association between variables. Pearson is most appropriate for measurements taken from an interval scale, while the Spearman is more appropriate for measurements taken from ordinal scales. In sum, Spearman's correlation provides a measure of how closely two variables agree with each other when at least one variable is ranked.

In this analysis, teacher-level data were converted into ranks in an attempt to account for the lack of variability at the teacher-level and to accommodate the potential

differences that may be classroom specific. Student scores were treated as continuous. Seven correlations were run for each of the seven subscales in Part I of the DSCS to determine the extent to which teachers (both general education teachers and special education teachers) and students agreed on their perceptions of school climate. The test was repeated to determine if there were agreement between teachers and students with ( $n=5$ ) and without BD ( $n=38$ ).

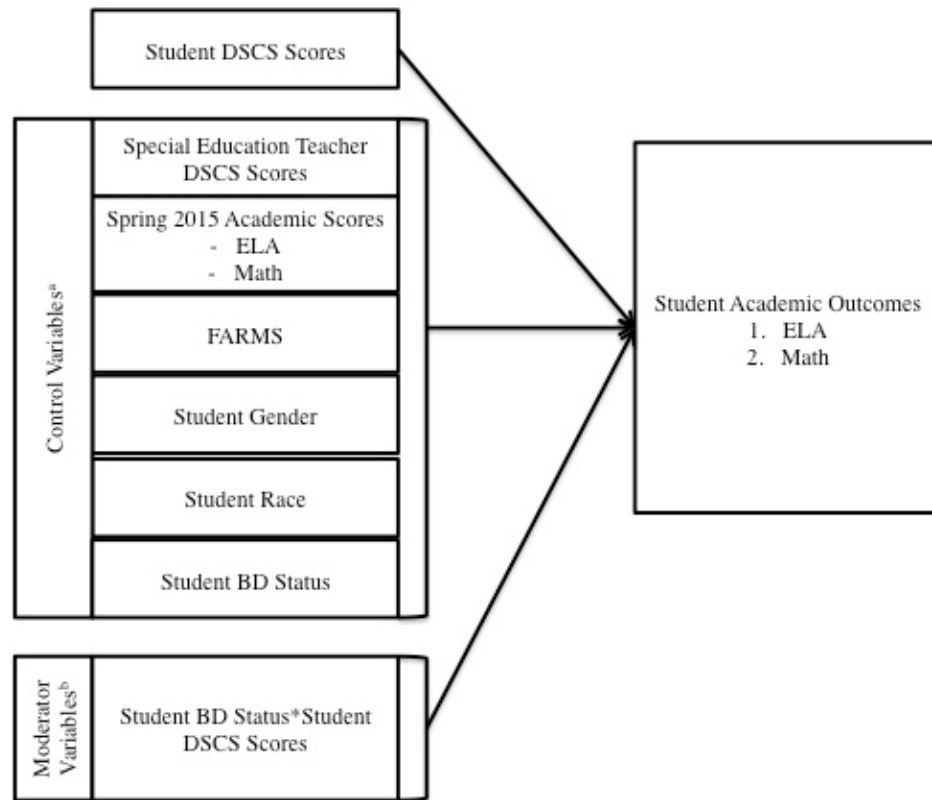
***Comparison to a state sample.*** Additional analyses were run to determine the extent to which Monroe teacher and student perceptions of school climate on each subscale of Part 1 of the DSCS were different from that of a state sample. A series of one-sample t-tests were completed to compare total DSCS scores in the Monroe sample to the Delaware sample using both teacher and student data.

**Question 3 Analyses.** To examine the association of school climate with academic outcomes, a series of multiple regressions were estimated. Each model tested the association between perceptions of school climate and academic performance. These models regressed both special education teacher and student perceptions of school climate on individual test scores while controlling for students' gender, race, FARMS, and previous DDM scores in Math and ELA (See Figure 6 for a graphic representation of this analysis model).



*Figure 6.* Multiple Regression Model 1: A representation of the relationships among variables.

The second part of Aim 3 asked: To what extent does having a behavior disorder moderate the association between school climate and student academic outcomes? To address that question, the model described above was repeated with the addition of student BD status and the interaction between BD status and school climate (BD status \* student DSCS scores). (See Figure 7 for a graphic representation of this analysis model). That is, it was tested whether or not BD status moderated the link between student DSCS scores and academic outcomes.



*Figure 7.* Multiple Regression Models 2–3: A representation of the relationships among variables when (a) BD status is added, and (b) an interaction term is added (BD status \* Student DSCS scores).

## **CHAPTER 4**

### **RESULTS**

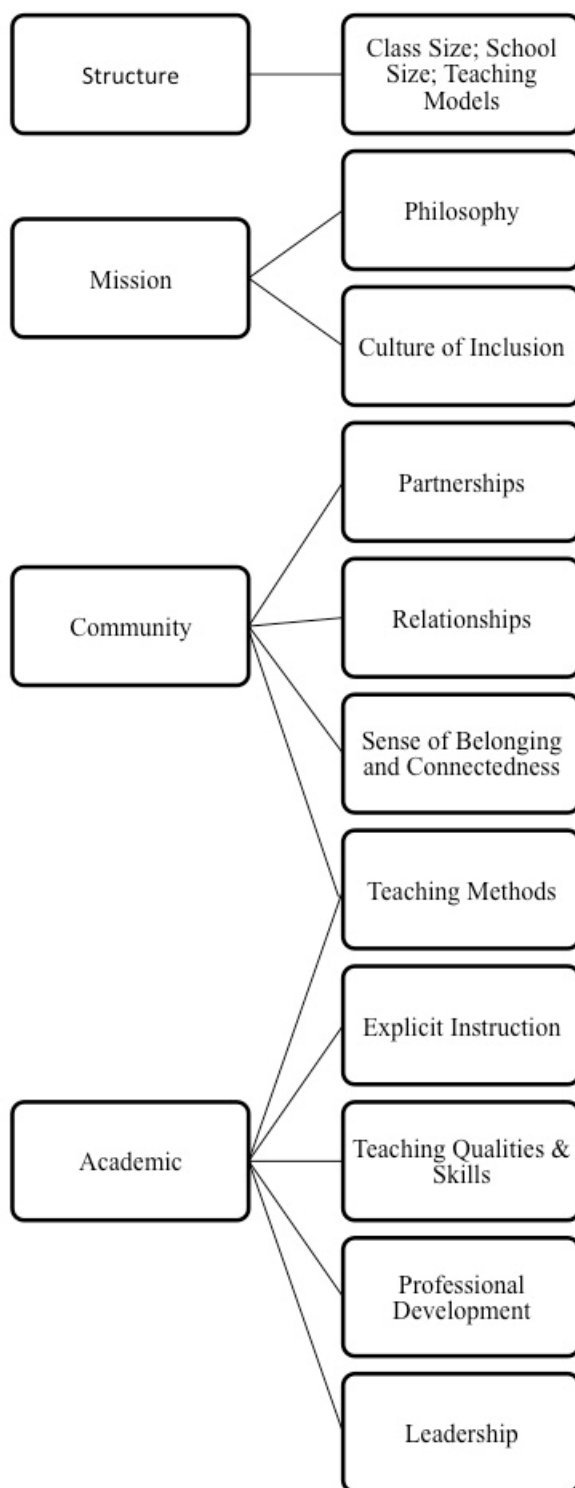
The purpose of this study was to (a) investigate what characterizes the climate in a school that includes students with BD, (b) examine the extent to which there is agreement between teacher and student perceptions of school climate, (c) investigate the extent to which student perceptions of school climate are associated with academic outcomes, when controlling for individual-level demographic factors, and (d) to examine the extent to which having a BD moderates the relationship between school climate and student academic outcomes.

#### **Characteristics of School Climate**

Interview transcripts, ethnographic observational notes, and school documents were coded and analyzed for themes characteristic of the Monroe school climate. Based on these analyses, four major themes emerged: structure, mission, community, and academics. Eleven sub-themes were identified that were descriptive of each of the four major themes. One of those sub-themes, teaching methods, was related to both community and academics, whereas each of the other sub-themes was related to only one major theme.

School structure, the first major theme to describe the Monroe's climate, represents structures associated with the size of the school, class size, and co-teaching models. School mission, the second major theme, is characteristic of the school's philosophy and culture of inclusion. The third major theme, Community, includes a description of the family and community partnerships that the Monroe has developed,

relationships between teacher, students, and administrators, how teachers and administrators have developed a sense of belonging and connectedness at the Monroe, and teaching methods employed that promote a positive climate. The final theme, Academic, represents teaching methods employed to support high expectations for academic performance, explicit instruction in managing social, emotional, and behavioral challenges, teacher qualities and skills, professional development, and leadership. A thematic map can be seen in Figure 8 showing these four main themes and the 11 sub-themes.



*Figure 8: Thematic Map*

**School Structure.** School structure emerged as a major theme in Monroe's work to sustain a positive school climate. The administration described some structures that support a positive climate such as a small school size with high teacher retention rates and a co-teaching model that is sustained by a stable funding formula. Through observation and document analysis, the leadership and the school's mission also contribute to the structure. These structures (1) allow the inclusive model to be sustainable over time and survive district budget cuts, (2) create strong relationships between staff and students, and (3) create systems that can be carried over by consistent staffing from one year to the next. One Monroe administrator said in his interview:

“We're able to create powerful relationships with our students, because we're small. But it's also really important to say just from that perspective that we are operating within the constraints of a weighted student funding formula. We're not getting any special monies through the back door so, you know, this is a sustainable model according to the district funding formula. There are other special education inclusion models that are not sustainable.”

Teachers reported feeling lucky that the school is so small, allowing them to use each other as resources and use the space in the school creatively in order to provide all of their students with supports and needed interventions. One teacher said: “We have two classrooms connected, so a kid can have an issue, a meltdown, whatever, but you don't leave fifth grade. You don't leave our class.” Keeping all students in class is one of the daily goals described by teachers for students with BD.

Administrators emphasized that the school structure works in tandem with the

school culture in order to develop and maintain a positive school climate. One administrator said: “I think that the structure and the culture go together. The culture can’t work if the structure is not sustainable and the structure won’t work if you don’t have a culture that supports it. They really, really work in tandem.” Administrators described these factors as contributing to a climate where everyone takes responsibility and cares for all the students in the building. For example, one administrator described supporting the health needs of all students every morning when the school does not have a nurse: “the nurse doesn’t come in until noon, so anything before noon, I’m it. I do the Band-Aids, the scrapes, the bloody noses, whatever, so um, taking care of the kids, that’s my main thing.” This was also evident with transportation, when staff were observed to offer to pick up children and drive them home if there were challenges with the city transportation department. One administrator said: “I always drive the kids home. In his case, he has a monitor but if the monitor doesn’t show up, the bus wouldn’t take him. And it’s honestly five minutes down the road and I have a relationship with his mother now. So I would just say, oh I’ll just take him, it’s no big deal.” These structural elements appear to create a foundation for the school’s mission and culture of inclusion.

**School Mission.** An analysis of information provided on the school website and grant applications indicates a core mission that emphasizes beliefs that: (a) practices should be inclusionary; (b) all children can and want to succeed at high levels; (c) there are more opportunities for excellence when every voice is included and supported; (d) students learn from each other; (e) all children can succeed in an inclusion setting even if some need different supports; (f) inclusion offers powerful opportunities for academic,

social and emotional growth for every student; (g) families play the fundamental role in the student's life; (h) every member of the community plays a role in making education a success. The mission is made clear through school documents and also appears to be internalized by faculty who often state their belief in all children and that the work they do is something they "live, eat, and breathe." During interviews, faculty spoke of buy-in and a belief that "all children can succeed, that they want to be and deserve to be part of the community, [and] a belief in the [power of their] relationships with families."

Teachers articulated that staff who did not believe in this mission and were unwilling to work in the interests of it, would not be able to work at the Monroe. One teacher said:

I mean I can't speak for other people in how much they buy into it. I can only assume everybody does. I don't think you'd work here if you didn't. I mean, when that feeling permeates the building, even on a rough day, which God knows we have, it's kind of like, y'know, you keep the end goal in mind, and it makes things better.

Teachers expressed an understanding that what they do to support the students' social and emotional development and progress would impact on their futures and their entire communities.

Above all, the faculty at the Monroe stated that they work to change how students see themselves. This philosophy came across more strongly than statements about inclusive practices, perhaps because teachers reported that the school had already created a culture where inclusive practices were a norm. As such, teachers indicated that they now work to change the narrative students with BD seemingly play in their mind - that

they are a failure. One teacher said:

Once you've told [a child] they're a failure, and the system has said they're a failure and that they can't be in a certain school, um, they see themselves as a failure. And you know it combines with messages coming from home that they're failures too, and that narrative is really hard to beat back. And you wanna make it so that they're able to change their narrative, in their own head, 'oh my gosh, I can be a student.' If you are here, you are going to be a successful student. It takes a long time to change the narrative in a student's head, because once labeled a failure, it's really hard to get a 7, 8, 9 year-old to believe they're not.

The faculty at the Monroe stated they believe that all children can and want to succeed and expressed a commitment to working together to change the narrative of failure that exists for many students with BD. They stated that this mission is guided by a shared philosophy of hopefulness where, as one teacher said, "everyone puts the kids first."

During interviews, teachers talked about how they came to work at the Monroe. In many cases, Monroe faculty recruited teachers or teachers were informed of the school's philosophy in a graduate program and encouraged to apply. In some cases, teachers were unhappy with their former school's philosophy of including students with BD, and they came looking for a change. Thus, since 2008, teachers came to the Monroe already sharing in the school's inclusive philosophy. One special education teacher said:

When I came here for the interview, the principal said, "a lot of schools who do what we're doing will have kids earn it (inclusion). They'll say, when you behave yourself, you can join the regular kids." And I immediately thought of my

experience in my old building, because that's how they did it. Then he said, "We prefer to take the opposite approach. We say, you are part of the regular group, and if you show you can't be, then we'll remove you." And I thought that was so much nicer, so much more logical, so much more in tune with helping a child develop, y'know, cause really, where is the role modeling if there are five or six kids holed up in a room together, separated from everyone else?

Teachers appeared emotional when speaking about the hope they have for their students' futures. They shared stories about the lives their students live outside of school that contribute to their disability and make everyday an uphill climb. For example, one general education teacher said:

I've had two kids who were homeless since I've been working here, and I've had a child who, when he was young, was locked in a closet while his mother prostituted herself. There's a different feeling of hopefulness here that was harder to find at my old school. There were some adults at my old school who would say things like, 'oh, c'mon, y'know, we all know he's going to be working at McDonalds someday.' No one would ever say that here. No one would even think of saying that here.

This hope appears to permeate the climate and guide staff through difficult days with many challenging behaviors. Teachers said they know that what they are doing together in the interests of all their students is unique and they are proud of the work their school does. One special education teacher said:

I have never seen a place that had so many practices when it comes to a therapeutic approach to behavior. And where it's built in from the very beginning. I've seen in the past, especially working with children with behavior [disorders], you hear all the time, 'this kid should be suspended for this! This kid should be suspended for that!' When you look at it, what we're here for is to help those students become successful IN school, you know—so I mean, the atmosphere here, what I always feel like, is when something is going right, we're making sure everybody knows that. We're making the students feel like, 'hey, we're all doing this, it's all of us together. It's you, your classmates.' And then when things are not going so right, like when a student is having a moment, you know, we let them know, well, we're here to support [you], to get you back on track.

The Monroe's inclusive philosophy appears to be shared among faculty. Teachers and administrators repeatedly referred back to their core beliefs and there was consistency among them. Additionally, school documents (e.g. newsletters, grant applications, school procedures) make reference to their philosophy that all children can and want to succeed, thus, they seem to support a culture of inclusion.

**Community.** Four out of six teachers and two administrators articulated their need to focus on consistently building and nurturing their school's community. They reportedly do this through developing relationships with parents and the community at large, building relationships with each other and with their students, and cultivating an environment of belonging and connection.

One of the most important traditions teachers and administrators referenced was the Morning Pledge. During an observation of this event, it appeared that this gathering was important to all individuals in the school. Each morning, after students finish their breakfast and are waiting for their teachers, the principal rings a bell and the entire school community creates a giant circle. The principal asks for a student to volunteer to remind everyone of the norms of the school: “do your best, own what you do, be responsible, and be safe.” Then, everyone recites the Pledge of Allegiance while looking at the American flag in the front of the room. Finally, all the children turn and face one another and recite, by memory and in unison, the school pledge: “I am somebody special and smart, with kindness and love in my heart. I pledge to work hard every day, so I can proudly say, I am the best at what I do, I can even teach you!” Then some students are awarded with a certificate if they have been seen to demonstrate the core values of the school. This activity was described by administrators as not only setting a positive mood for the day, but emphasizing the importance of community. One administrator said:

I mean, it changes your relationship...this is not just a building anymore, it's part of a community that you've pledged to support. And we do that 180 times a year, you know, from K0 to Grade 5. Over 7 years it begins to make some changes inside your brain that you're part of a community and you have to actively do things to support it.

Spending the time each day to recognize students and together make a commitment to upholding the values of the community while pledging to support it is only one example of how the Monroe appears to build community. They also create partnerships with

families and the greater community.

The Monroe is a racially and economically diverse school. Many parents struggle to provide for themselves and support their children's social, emotional, and academic growth. Rather than judge families for their limitations, the faculty and other parents from the Monroe say that they actively support struggling parents. One special education teacher said:

Families and parents are already inclined to also be involved in that way. So for example, some families will be really eager to help with transportation or something if a family doesn't have transportation. And this year, we were trying to think of things to do for a fundraiser, and one of the families was like, what about if over this February break we watch other kids instead of paying for a daycare or camp. We ended up calling it Shared Care.

The researcher observed the principal leaving the building so that he could go to a homeless shelter and connect with a father whose son was having a difficult time in school and was without medication. Additionally, the researcher heard a teacher say to parents, "be in touch if there is anything I can do to support." These examples suggest that the faculty and some members of the parent community make an effort to support those parents who may be in need of extra support. There is also evidence that the Monroe builds connections with the community at-large. For example, a local hospital provides the school with 200 hard cover books every year and 15 people come and mentor specific students. These efforts to cultivate relationships with families and the community at-large is one example of how the Monroe appears to build and sustain a

positive school climate even in the most difficult of circumstances. Another characteristic of the Monroe school climate is the quality of the relationships between and among students and teachers.

When interviewed, all teachers provided examples of the ways they support students' emotional development and how they intervene with their students. Trust appeared to be an important element in sustaining a positive climate and building these positive relationships. For example, teachers articulated that they allow "problems to occur, so that everybody can get practice dealing with problems together." They make an effort not to micromanage "every little thing in their lives" and "we actually trust kids to work on their self-regulation. We give them the tools so that they can manage their emotional states. You don't have to ask my permission. I don't have to intervene. If you know how you feel, and if you need a break, take a break."

All students, including those without BD, are provided access to sensory regulation tools (e.g. seat cushions, noise reducing headphones, stress fidgets). The teachers describe their goal as encouraging students to learn to regulate themselves with standard accommodations, rather than limiting the availability of those tools to students for whom they are stipulated in an Individualized Education Program. In doing so, one administrator said, "we can put the control back with the child, and when you do that, they can begin to dampen down those impulses. They have the tools to do that and be self-regulated, and learn the internal regulations as opposed to having externalized, [adult directed support] all the time." In addition, teachers were observed to hug students, tell them they love them, shake their hands, and inquire about their days. This suggests a

common effort to build and sustain relationships built on a mutual trust, respect, and care.

On one occasion, a student was observed to remain in the cafeteria alone after The Morning Pledge was over and all classes were dismissed. An administrator explained that he trusted the student to stay behind and believed that he was not feeling well. The administrator went on to explain that the student refused to go to school for two years. As a result, the student was transferred to the Monroe and instead of coming into the school, he stayed outside by a stream everyday for two months. On his own accord, he finally came in to the school, made it to class, and is now a member of the community. This student's story, and the faculty's decision to trust him to eventually join his class when he was given enough time to make the decision on his own, suggests that the trust in students may help to empower students with self-determination. Upon further observation, when this student finished eating breakfast, he independently got up, cleaned up his place, and entered the hallway. Coincidentally, his class was lined up in the hall. His teacher did not ask the student where he was or why he was late. He simply welcomed him, shook his hand, and said good morning.

These respectful and non-judgmental exchanges are a typical occurrence at the Monroe. Teachers reported that they gain support from one another by admitting to their co-teachers that they are emotionally exhausted from managing behaviors and need their partner to take over. One teacher said: "I've said to my co-teacher, 'I have finished for this hour responding to any of that child's behaviors.' And he'll be like, 'okay, message received.' Or he'll say to me, like, 'I'm about to lose [it], so you got this?'" The teachers explain that these exchanges are intended to be devoid of negative undertones or

messages suggesting their partner can't manage the students. They seemingly trust one another to understand that their partner has reached their own emotional limit, and that even though they may have high thresholds, there comes a point where they need and ask for support.

Teachers and administrators also reported that much work is done to foster relationships between the students. Because the Monroe is a very small school, there is only one class per grade. Consequently, students move through the grades together with very little change in peer group. This has made teachers worry about social cliques and the stigmatization of students with BD. Besides explicitly teaching students about social and emotional challenges, which will be discussed more in the next section, teachers reported making efforts to encourage students to broaden their social circles. One teacher said: "Each year I will have a bulk of lessons where I say, you're not allowed to work with the people you've always worked with since first grade. You must break out of your social comfort zone, you must work with someone else." Teachers also shared that because of their active efforts, students show empathy toward their peers with BD when they have emotional outbursts and often show them support. One general education teacher said:

They learn kind of this empathy that it is an embarrassing and a vulnerable moment for that student that it's even harder for them to come back. Like one of our students, it's maybe once a month that he will have one of those episodes, and it's a really strong reaction. He's done really well at earning [his peers] acceptance and respect as a very successful classmate and so when he has that

setback, you know, it bothers him emotionally. He looks at himself differently and he feels disappointed in himself. So now it's an embarrassing moment where he has to come back and talk to the students. He expects, you know, everyone's gonna be staring at him, doing that whole, 'oh man, you were out of control, I can't believe that'—but they know that's how he's going to feel, so when he comes in, they just slide his work right back over to him, and say, 'okay, welcome back, here's what we missed.' It's amazing.

These examples provide evidence of a strong, positive community through the building of partnerships and strong relationships.

It is worth noting that half of the teachers articulated factors that could be perceived as barriers to maintaining a positive school climate such as a reduction of public resources including funding for materials, activities, and transportation. Teachers expressed frustration with the lack of resources provided by the city and stated hope that this would change in the near future or with a change in upper administration.

Additionally, administrators were observed to spend most of a morning trying to convince the school department to provide transportation to a family struggling to transport their child to school. Thus, the scarcity of public resources and challenges with district-level decisions may pose potential barriers to maintaining a positive school climate. However, some teachers at the Monroe spend time applying for grants and seek to become eligible for donations.

Instead of waiting for bureaucratic change, one particular team of teachers works to provide their students with a week-long trip to a farm where students rebuild

friendships, create new ones, and foster connectedness and belonging. The teachers are solely responsible for finding the funding, identifying a working farm that is willing to support students with severe BDs, orchestrating the events at the farm, and staying with the students the entire time. For many students, this is their first time away from home or the city. The teachers believe this to be an integral part of building community. One organizing teacher said: “I mean, [it’s a] real mind shift to ‘we are all together’ and ‘we are all a class’ and everyone is doing something to contribute and everyone has something to learn.” These particular teachers expressed a similar mindset within their classroom. If students have emotional outbursts, they utilize the extra space in their class to keep students in their class in order to reinforce a sense of belonging.

In summary, community development is a major characteristic of the Monroe’s school climate. The faculty work to build partnerships with families and the community at-large, they foster relationships with students, between students, and with their colleagues, and nurture students’ feelings of connectedness and belonging. These efforts suggest a commitment to the development and maintenance of a positive school climate.

**Academic.** One of the core values of the Monroe Elementary School is to provide students with consistently challenging and engaging academics. In interviews, observations, and document analysis, there was evidence of explicit instruction in social and emotional learning, common qualities and skills among teachers, specific teaching methods employed by teachers, professional development that is specific to the school’s needs, and leaders that reinforce the values, mission, and philosophy of the school.

All six teachers conveyed a commitment to establishing classroom based behavior

norms and explicit instruction in social emotional development. They describe beginning the school year spending time setting expectations and modeling expected behaviors, such as how to use self-regulation tools, and take breaks independently, even if it delays the start of district initiated academic curriculum.

During interviews, teachers were candid about difficult conversations they have with their class. They address topics such as dysregulation, emotional meltdowns, and social engagement and strategies teachers can do to address challenging situations. One teacher stated:

We [have] frank conversations about race, or class, or feeling entitled or privileged, and how you speak to somebody, or how you presume things. It brings up a lot of conversations about their emotions and what they can project onto others: “So like, you’re really angry. Are you actually angry at this person? Okay, what do we do with that, how can we identify it, what kind of steps do we take to talk about it?”

Teachers describe engaging openly and honestly with their students about emotional challenges and common struggles that all children have when developing their social and emotional skills: “I work really hard to normalize any kind of support, vulnerability, or growth, so kids don’t hesitate to name things they struggle with so they don’t feel like they need to hide. We’re also really big on trying to openly celebrate and name things when kids make a shift.” They even go so far as to name students’ behaviors or the effect their behaviors are having on the classroom community. Teachers report that students are relieved when they do this. One teacher educated in neuroscience teaches her students

about their “stress networks” so that they can learn to think through their feelings as oppose to simply reacting to them. She said:

I teach kids about their brains, like in the most kid friendly way I can, and one of the big things is their stress network—so that they can start to reflect on what it looks like if somebody else’s stress network is triggered, or what their stress network looks like physically. So like, ‘Why do we practice stressful things when you are really stressed? Cause if you can practice it a little bit and you can calm your ‘mohawk’ down, then your brain can actually get to what your brain knows. But if all your energy is going to your stress network, then your energy isn’t gonna go to everything you know.

These techniques can be time-consuming, but teachers at the Monroe articulated the necessity of spending this time and that, in the end, they probably get more accomplished during lessons and students retain more knowledge because they feel they are emotionally ready to learn.

Teachers at the Monroe describe explicitly teaching their students without BDs how to respond to their peers with BDs when they are emotionally dysregulated and exhibiting challenging behaviors. This can take on a few different forms. Two teachers described the need to occasionally stop instruction, invite all the students to the rug, and name the behaviors they are witnessing. This gives way to lessons on how they can manage the challenging behaviors and what they can say to their peers by providing them with firm, but caring scripts such as, “It bothers me when you \_\_\_\_, I would prefer that you \_\_\_\_.” Meetings such as this also give teachers the opportunity to obtain information

about bullying or peer conflicts that may be “corroding the classroom community” and address it.

Similarly, teachers describe publicly praising their students for exhibiting expected, pro-social behaviors when they were more likely to engage in challenging behaviors: “I just wanna take a second and pause. In the past, we’ve seen \_\_\_\_ who might’ve been really hard on themselves when they didn’t get it right. Today, you raised your hand and it wasn’t quite right, and you’re right there listening, so you can keep learning, that’s awesome.” Being transparent about student behaviors, challenges, and progress is an active effort to destigmatize the vulnerability of emotional meltdowns. According to Monroe teachers, when a student is having a meltdown, the other students do not react to it. The students know that it is merely a moment in the day and that “the student will come back and still be a welcome part of the community.”

An observation of recess exemplified the supportive stance peers take when a student is losing control. In this situation, a second grader refused to go into the school and decided instead to throw a stick against the building. A fifth grader, whose turn it was to be a “junior coach” during recess, did not hesitate to go over to the student and ask what was wrong. The second grader did not initially answer and the junior coach (fifth grader) gave more physical space between the two of them but did not give up. Finally, the second grader said, “Would you want to be last in line?” The fifth grader said, “Well, everyone is going to the same place, so it doesn’t really matter.” With that the second grader walked inside the school. The fifth grader did not seem afraid to approach the second grader who was armed with a stick and growing increasingly agitated. The fifth

graders actions suggest that over the years that students are at the Monroe, they learn many skills that go beyond rigorous academic content, but that may be incredibly valuable to their own social and emotional development.

Some teachers at the Monroe share common qualities and skills that appear unique. They seem to take pride in their abilities and know that the work that they are doing and the students they are teaching is not the right job for every educator. For example, one teacher commented that the faculty has to be able to handle the emotional drain of the daily work. The teacher specified that they need people “who are willing to go home on any given day absolutely wiped out, drained, and not question why we’re doing what we’re doing. Only questioning how we can make it better.” Another teacher stated that the teachers who are most successful keep their ego in check, understand that they have something to learn, and that no matter how educated and experienced they are, the students need adults to build interventions around them, not the reverse.

Some teachers at the Monroe admit that the work they do is challenging and, in particular, balancing structure with creativity and individualization is a constant challenge. However, they report that regardless of how difficult some days may be, they find it reinforcing to witness the transformation of their students. The ability of teachers to manage competing demands and severe emotional outbursts is described by teachers as key to their success at Monroe.

During an interview, an administrator emphasized that managing the emotional outbursts of children can often trigger fear, anxiety, or trauma in adults, making intervention challenging. Some of the work the faculty does together is learning how to

recognize their own emotional vulnerabilities so that they can become better at intervening and controlling their own emotional reactions and therefore avoid engaging in power struggles with students or reacting in a way that could further upset the student.

Some teachers described experiences working in urban environments that helped them learn to avoid letting their own emotional state interfere with their ability to implement specific interventions to support their students. An example is a teacher who previously worked in an urban environment where he witnessed community violence and taught students with severe BDs. Others described building resilience from being exposed to externalizing behaviors at the Monroe. One administrator said, “Chairs thrown, you know, swearing, hitting, kicking, fighting, and I had no idea. It only took me three months, I think it was from September to December cause by December I was like oh, that’s nothing, the kids say ‘f--k you,’ that’s nothing.” Administrators spoke of working together, staying true to their mission, and staying calm in order to manage the stresses of the work. One administrator said:

When we have the mom who comes in screaming and yelling, or we have the kid who flips the desk... Most people in this building are able to take a deep breath and don’t freak out. You know, it’s like, don’t get too rattled, it’s alright, we’re gonna get through this, he’s still a good kid, we’re gonna figure out how to make this right.

Another common quality among the faculty at the Monroe is their ability to be consistent. In doing so, the teachers are able to build upon the social and emotional skills that were taught in previous grades. The language that teachers use to respond to

challenging behaviors is also purposefully consistent. Consequently, students learn one set of interventions that gets carried all the way through the grades, promoting emotional success.

Some teachers spoke of taking creative risks both with their academic and social curriculum and having the ability to reassess the effectiveness of their efforts. An administrator articulated strong belief in teachers' abilities, referring to them as experts and knowing how to respond to just about any situation. In fact, even though teachers were hired as either general education or special education teachers, most were dual certified in both special and general education, while some had a third certification in teaching English Language Learners. This preparation allows teachers to split their classes into small groups based on subject matter, not by disability, preserving the within-class, inclusive model.

Monroe teachers appear to be skilled methodologically. They implement individualized interventions, employ antecedent management techniques to prevent challenging behaviors from occurring, and provide social and emotional accommodations to all students. A teacher described working with his or her co-teacher to deconstruct why one of their students was exhibiting oppositional behaviors and engaging in power struggles. The student would often refuse to join group discussions and preferred to sit at his desk. The teachers decided to change where they placed the group so that even if the student sat at his desk, he could still see and be part of the conversation. By doing this, they were able to avoid getting into power struggles with him over where he should sit during group instruction. Additionally, teachers described adjusting student schedules,

giving assessments at alternate times, and providing them with opportunities throughout their day to practice breathing exercises and sensory activities to either get their energy out or calm their energy down. Some teachers at the Monroe operate on the belief that, as one teacher said, there are “no two children who are going to be learning the same. You build a certain approach for each student, each subject, each lesson. You keep trying until you find something that works.” For some children, this includes listening to music, painting, drawing, or walking.

Students at the Monroe without BD have access to most, if not all, of the social emotional supports that are available to students with BD. For example, classrooms incorporate movement activities throughout the day so that all students can be physically active. All students have access to noise buffers, privacy boards, and seat cushions so that they can all engage in the practice of self-regulation. Furthermore, when all children utilize these tools, the use of them is no longer stigmatizing.

The Monroe faculty engages in building-based, professional development activities that support the needs of their students and the needs of their teachers. By supporting their unique work, the culture of inclusion continues to be nurtured.

According to an administrator:

Everybody needs to be in the same room, doing the same thing, learning about the same stuff, to create a coherent culture. And to create a coherent culture, what you’re learning about and how you treat kids and that you’re spending time together as a whole staff and that you’re all on the same page doing the same thing. We’ve got our issues, you know, but individual teams and individual

teachers are uniformly committed to doing everything they can to make these kids successful in this environment. Learning together is really important.

Administrators identified the major area of their professional development work is in building a “therapeutic educational milieu.” According to school documents, The Therapeutic Educational Milieu seeks to integrate academic and social emotional learning methods and strategies drawn from evidence-based sources such as Trauma Sensitive Schools, Responsive Classroom, Cooperative Discipline, Crisis Prevention and Intervention (CPI), and Steps To Success. Every year, the faculty reviews these practices to ensure mastery.

The final element that creates a strong social, emotional, and academic base is school leadership. The school principal and special education director provide support to students, families, and teachers. This was made clear during observations, interviews, and through document analysis. One of the most common themes that emerged was the trust that administrators have in their teachers and the perception of them as being high-level professionals who are experts at their jobs.

Teachers articulated that the leadership did not micromanage them, and that they respect that teachers know what will work for them and their students. They spoke of being given freedom to try new interventions, tapping into the innate creativity of many teachers. The administration makes an active effort to build and sustain trust with faculty. One administrator stated that trust is partially built by supporting his teachers, which he repeatedly does, especially when a student is emotionally and behaviorally dysregulated. Teachers describe their administration as fighting for them while making expectations

clear. They reported that their principal has developed a supportive, warm, and trusting relationship with teachers. The principal describes his role as acting as a “vessel in which people can do their best work.” He stated that he expects that teachers are experts on instruction and “take some of the toughest kids in the city and get their behavior” under control, because that is what the students need. At the same time, he articulated working hard on being available to teachers to support them in any way possible.

These data illustrate that the Monroe has a positive school climate and provides evidence that teachers implement specific interventions to maintain this climate. A qualitative analysis of interviews, observational notes, and school documents was completed to determine the elements that characterize Monroe’s school climate. Results indicate a climate built on a sustainable structure with a clear mission and shared philosophy promoting a culture of inclusion. Furthermore, the climate is also comprised of strong academic systems and an emphasis on building community through relationships and partnerships.

### **Determining Student BD Status**

Before quantitative analyses were completed to address Study Aims 2 and 3, students were categorized as having a BD or not having a BD. Two methods were used to assess student behavior problems in order to classify students as having a BD. First, teachers completed an electronic version of the Child Behavior Scale for each student in their class (CBS; Ladd & Profilet, 1996). Second, student disability status, as determined by the Monroe, was acquired through administrative records. Using these two methods allowed for a comparison of students identified as have an emotional impairment with

those whose teachers identified as exhibiting externalizing behaviors. By including teacher reports of student behaviors, this study provided an opportunity to examine all students exhibiting behavioral challenges, not just those served under IDEA. Further, it was possible that students carried a label of emotionally impaired (as identified by IDEA), but no longer exhibited behaviors consistent with this label.

For this study, the CBS subscale *Aggressive with Peers* was used to determine the frequency and types of externalizing behaviors students exhibited in each classroom. Internal consistency reliability of the *Aggressive with Peers* subscale in the current sample was strong ( $\alpha = .92$ ). Each item score in this subscale was totaled and an average score was calculated. The average was then determined to be greater than, less than, or equal to the grade level mean scores, as indicated in the CBS scoring manual (Grade 3 = 1.23; Grade 4 = 1.23; Grade 5 = 1.28; Ladd, 2010). If the average score was less than the mean score presented in the manual, the student was categorized as not having a BD. If the average score was greater than the mean score presented in the manual, the student was categorized as having a BD.

Thirty percent of students were above the cut-point for aggressive behaviors as measured by the CBS (13/43) and only 11.6% (five students) were identified as emotionally impaired by administrative records. In addition, among the five students on an IEP for EI, only one was not identified as having a BD by the CBS. As a result, additional analyses were run to determine which measure was the strongest predictor of academic outcomes. CBS scores were tested as both a continuous and a dichotomous variable (dichotomized based on whether students scored above or below the

recommended cut-point). Regression analyses were conducted to determine whether the CBS classification or student IEP classification was most strongly associated with academic outcomes. Results shown in Table 5 indicate that when CBS and student IEP classification were included in models testing their association of each academic outcome (Fall Math & ELA, Winter Math & ELA), student IEP classification was consistently more strongly associated with academic outcomes. As such, IEP EI classification was used in analyses in the current study instead of student scores on the CBS.

Table 5

*Regression Results of Student BD Status as a Dichotomous Variable and Student EI Status as a Dichotomous Variable on Student Achievement*

	Fall Math			Fall ELA			Winter Math			Winter ELA		
	<i>B</i>	$\beta$	<i>p</i>	<i>B</i>	$\beta$	<i>p</i>	<i>B</i>	$\beta$	<i>p</i>	<i>B</i>	$\beta$	<i>p</i>
CBS	-0.09	-0.16	.33	-0.11	-0.23	.14	-0.08	-0.07	.40	-0.10	-0.21	.21
IEP for EI	-0.20	-0.25	.14	-0.24	-0.37	.02*	-0.10	-0.14	.41	-0.15	-0.22	.20
<i>R</i> <sup>2</sup>	0.12			0.26**			0.06			0.12		

\* $p < .05$ . \*\*  $p < .01$ .

### **Multi-Informant Agreement on Perceptions of School Climate**

The second aim of this study was to determine the extent to which there was agreement between teacher (general and special educator) and student perceptions of school climate. It was hypothesized that differences in perceptions of climate existed between students with and without BD, between general and special education teachers, and between teachers and students. It was further hypothesized that students with BD would have more negative perceptions of school climate than students without BD.

First, the extent to which there was agreement between teacher and student perceptions of school climate was examined. Tables 6 & 7 shows measures of central

tendency including mean and standard deviations for the School Climate subscales (teacher-student relations, student-student relations, clarity of expectations, fairness of rules, respect for diversity, and total school climate score) for teachers and students.

Table 6

*Descriptive Statistics: Teacher Mean Scores on the DSCS, Part I: School Climate*

Subscale	General ( <i>n</i> =3)		Special ( <i>n</i> =3)		Total ( <i>N</i> =6)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Teacher-Student Relations	3.23	0.32	3.67	0.00	3.44	0.34
Student-Student Relations	2.83	0.24	3.09	0.12	2.96	0.25
Safety	3.00	0.00	3.00	0.00	3.00	0.00
Clarity of Expectations	2.77	0.15	3.35	0.48	3.06	0.49
Fairness of Rules	2.55	0.16	3.35	0.48	2.94	0.57
Respect for Diversity	3.23	0.58	3.56	0.32	3.39	0.53
Total Score	2.93	0.16	3.32	0.16	3.12	0.27

In general, teachers reported a positive school climate, with mean scores close to or above 3 on a scale from 1–4. However, when special educators were compared with general educators, results showed that general education teachers reported more negative perceptions than special education teachers, especially in the domains of student-student relations and fairness of rules. Both groups reported the domains of teacher-student relations and respect for diversity as the most positive domains.

Table 7

*Descriptive Statistics: Student Mean Scores on the DSCS, Part I: School Climate*

Subscale	Grade						BD Status				Total (N=43)	
	3 (n=15)		4 (n=13)		5 (n=15)		BD (n=5)		Not BD (n=38)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
T-St Relat.	3.63	0.48	3.49	0.52	3.76	0.32	3.47	0.51	3.65	0.44	3.63	0.45
St-St Relat	2.72	0.68	2.67	0.56	2.88	0.46	2.85	0.60	2.75	0.57	2.76	0.57
Safety	3.16	0.47	2.85	0.72	2.96	0.66	3.00	0.74	2.99	0.61	2.99	0.62
Cl. of Exp.	3.41	0.46	3.18	0.50	3.53	0.35	3.00	0.41	3.44	0.44	3.38	0.45
Fair Rules	3.53	0.52	2.86	0.71	3.27	0.61	3.00	0.63	3.27	0.66	3.24	0.66
Resp. Div	3.89	0.24	3.59	0.51	3.84	0.31	3.53	0.45	3.82	0.36	3.78	0.38
Total Score	3.36	0.36	3.08	0.46	3.35	0.34	3.14	0.42	3.30	0.40	3.27	0.40

While mean scores differed slightly, students across grades agreed that the most challenging element of their school's climate was student-student relations and the most positive element was respect for diversity. These patterns were consistent among students with and without BD. Table 8 displays an independent sample t-test comparing the mean DSCS scores of students with BD to students without BD. Analyses were run for each of the seven subscales. There were significant differences between student mean scores on the subscale *Clarity of Expectations* with students without BD reporting higher mean scores than students with BD. There were no significant differences between the mean scores of students with BD and students without BD for the other six subscales.

Table 8

*Independent-Sample T-test Results Comparing Monroe Elementary Student Mean Scores with BD with Student Mean Scores without BD on Part 1 of the DSCS*

Subscale	No BD (38)		BD (5)		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Teacher-Student Relations	3.65	0.44	3.47	0.51	.87	41	.39
Student-Student Relations	2.74	0.57	2.85	0.60	-.37	41	.72
Safety	2.99	0.61	3.00	0.74	-.03	41	.98
Clarity of Expectations	3.44	0.44	3.00	0.41	2.11	41	.04*
Fairness of Rules	3.27	0.66	3.00	0.63	.86	41	.40
Respect for Diversity	3.82	0.36	3.53	0.45	1.61	41	.12
Total Score	3.29	0.40	3.14	0.42	.79	41	.43

\* $p < .05$ . \*\*  $p < .01$  (Sig. 2-tailed).

Next, a Spearman correlation was run to determine the extent to which teachers and students agreed on perceptions of school climate. Table 9 shows the Spearman correlations ( $r_s$  or  $\rho$ ) between the school climate indices reported by teachers (both general education teachers and special education teachers,  $N=6$ ) and students in Grades 3–5 ( $N=43$ ). Results reveal that on one of the seven indices of school climate (fairness of rules) scores reported by general education teachers was negatively correlated with student responses ( $\rho = -.04$ ;  $p = .02$ ). DSCS mean scores on the *Safety* subscale were the same between both groups and was therefore excluded from the analysis. Further, when data were aggregated into two groups, BD and not BD, 0 of the 7 indices reported by teachers were significantly correlated with student responses for those with (Table 10) or without BD (Table 11). These results indicate that teachers (special and general) and students differ in their perceptions of school climate.

Table 9

*Correlation Coefficients (Spearman's rho) Between Student and Teacher Scores on Part 1 of the DSCS and Between Students With and Without BD*

Student DSCS Subscales	Teachers	
	General (n=3)	Special (n=3)
1. Teacher-Student Relations	0.01	- <sup>a</sup>
2. Student-Student Relations	-0.15	0.15
3. Clarity of Expectations	-0.28	0.24
4. Fairness of Rules	-0.35*	0.01
5. Respect for Diversity	0.06	0.20
6. Total School Climate Score	0.01	0.23

\* $p < .05$ , \*\*  $p < .01$ ; <sup>a</sup> correlation could not be calculated because at least one of the variables was a constant.

Table 10

*Correlation Coefficients (Spearman's rho) Between General and Special Education Teachers and Students with BD on Part 1 of the DSCS.*

Student DSCS Subscales	Teachers	
	General (n=3)	Special (n=3)
1. Teacher-Student Relations	.74	- <sup>a</sup>
2. Student-Student Relations	.58	-.57
3. Clarity of Expectations	-.75	.30
4. Fairness of Rules	-.76	-.30
5. Respect for Diversity	.25	.30
6. Total School Climate Score	.65	.11

\* $p < .05$ , \*\*  $p < .01$ , <sup>a</sup> correlation could not be calculated because at least one of the variables was a constant

Table 11

*Correlation Coefficients (Spearman's rho) Between General and Special Education Teachers and Students without BD on Part 1 of the DSCS.*

Student DSCS Subscales	Teachers	
	General ( <i>n</i> =3)	Special ( <i>n</i> =3)
1. Teacher-Student Relations	-.07	- <sup>a</sup>
2. Student-Student Relations	-.25	.25
3. Clarity of Expectations	-.28	.25
4. Fairness of Rules	-.32	.05
5. Respect for Diversity	.06	.22
6. Total School Climate Score	-.06	.25

\* $p < .05$ , \*\*  $p < .01$ , <sup>a</sup> correlation could not be calculated because at least one of the variables was a constant.

### **DSCS Comparison to a State Sample**

**Elementary Teachers.** A series of one-sample t-tests were run to determine if there were differences in mean ratings on each of the 7 subscales of the DSCS between the teachers in Grades 3–5 at the Monroe ( $N=6$ ) and those teachers in Grades 3–5 from a state representative sample from Delaware ( $N=2201$ ). Table 12 displays the means and standard deviations for teacher scores on each subscale of the DSCS. There were no statistically significant differences between Monroe teacher ratings and the state sample on any of the DSCS subscales: teacher-student relations (Monroe:  $M = 3.45$ ,  $SD = 0.35$ ; State:  $M = 3.55$ ,  $t(5) = -.73$ ), student-student relations (Monroe:  $M = 2.96$ ,  $SD = 0.25$ ; State:  $M = 3.06$ ,  $t(5) = -1.01$ ), teacher-home communications (Monroe:  $M = 3.12$ ,  $SD = .41$ ; State:  $M = 3.41$ ,  $t(5) = -1.46$ ), safety (Monroe:  $M = 3.00$ ,  $SD = 0.00$ ; State:  $M = 3.34$ ), clarity of expectations (Monroe:  $M = 3.06$ ,  $SD = 0.49$ ; State:  $M = 3.44$ ,  $t(5) = -1.92$ ), fairness of rules (Monroe:  $M = 2.95$ ,  $SD = 0.57$ ; State:  $M = 3.36$ ,  $t(5) = -1.77$ ),

respect for diversity (Monroe:  $M = 3.39$ ,  $SD = 0.53$ ; State:  $M = 3.58$ ,  $t(5) = -.88$ ), and total school climate scores (Monroe:  $M = 3.13$ ,  $SD = 0.23$ ; State:  $M = 3.34$ ,  $t(5) = -2.23$ ).

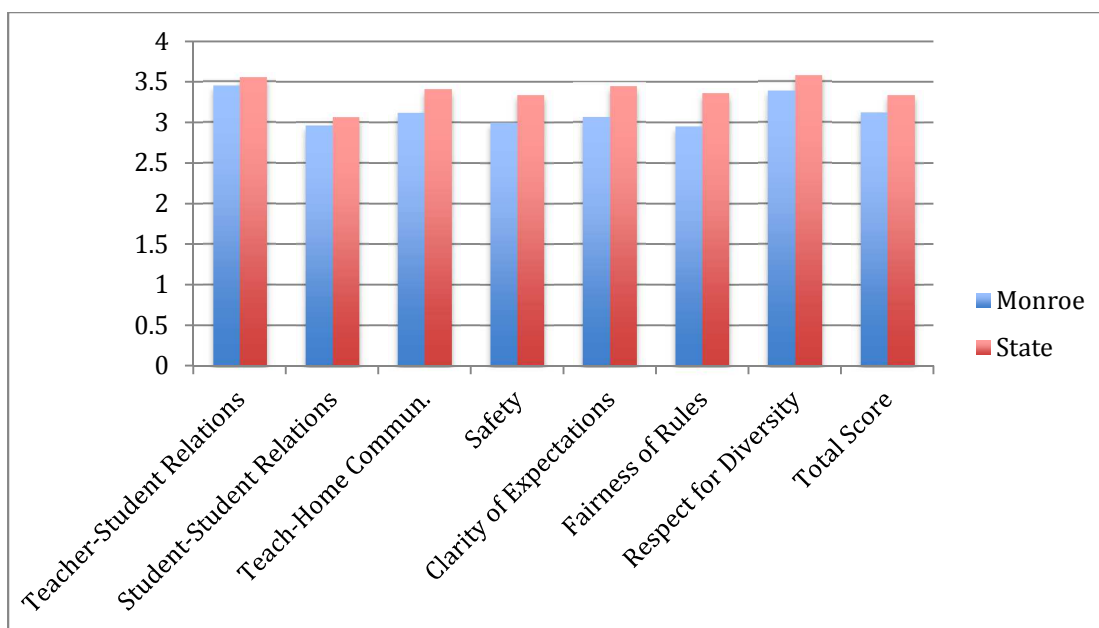
In all cases, Delaware scores were higher than scores at the Monroe, even though differences were not significant (Figure 9).

Table 12

*One-Sample t-tests, Means, and Standard Deviations for Subscale and Scale Scores for Elementary Teachers on Part 1, School Climate for the Monroe and the State Sample*

Subscale	Monroe ( $n=6$ )		State Sample ( $n=2201$ )		$t$	$df$	$p$
	$M$	$SD$	$M$				
Teacher-Student Relations	3.45	0.35	3.55		-.73	5	.50
Student-Student Relations	2.96	0.25	3.06		-1.01	5	.36
Teacher-Home Communications	3.12	0.41	3.41		-1.46	5	.20
Safety	3.00	0.00	3.34		- <sup>a</sup>	-	-
Clarity of Expectations	3.06	0.49	3.44		-1.92	5	.11
Fairness of Rules	2.95	0.57	3.36		-1.77	5	.14
Respect for Diversity	3.39	0.53	3.58		-.88	5	.42
Total Score	3.13	0.23	3.34		-2.23	5	.08

*Note.* \* $p < .05$ , <sup>a</sup>  $t$  cannot be computed because the standard deviation is 0.



*Figure 9.* Elementary Teacher Mean Scores on Part 1 of the DSCS: A Comparison Between Monroe and Delaware Sample.

**Elementary Students.** A series of one-sample t-tests were conducted to determine if there were differences in mean ratings on each of the 7 subscales of the DSCS completed by students in Grades 3–5 at the Monroe ( $N=43$ ) and those in a Delaware sample in Grades 3–5 ( $N=15,814$ ). Table 13 and Figure 10 display the means and standard deviations for student scores on each subscale of the DSCS and Table 14 displays t-test analyses. Monroe students reported significantly higher ratings relative to the state sample on the teacher-student relations (Monroe:  $M = 3.63$ ,  $SD = 0.45$ ; State:  $M = 3.48$ ,  $SD = 0.60$ ,  $t(42) = 2.23$ ,  $p = 0.31$ ), and respect for diversity (Monroe:  $M = 3.78$ ,  $SD = 0.38$ ; State:  $M = 3.51$ ,  $SD = 0.59$ ,  $t(42) = 4.73$ ,  $p = .00$ ). Monroe students also reported significantly lower ratings relative to the state sample on safety (Monroe:  $M = 2.99$ ,  $SD = 0.62$ ; State:  $M = 3.25$ ,  $SD = 0.68$ ,  $t(42) = -2.73$ ,  $p = .01$ ). There were no significant differences for all other subscales: student-student relations (Monroe:  $M =$

2.76,  $SD = 0.57$ ; State:  $M = 2.75$ ,  $SD = 0.71$ ,  $t(42) = 0.13$ ), clarity of expectations (Monroe:  $M = 3.38$ ,  $SD = 0.45$ ; State:  $M = 3.36$ ,  $SD = 0.59$ ,  $t(42) = 0.35$ ), fairness of rules (Monroe:  $M = 3.24$ ,  $SD = 0.66$ ; State:  $M = 3.17$ ,  $SD = .67$ ,  $t(42) = .66$ ), and total school climate (Monroe:  $M = 3.27$ ,  $SD = 0.40$ ; State:  $M = 3.24$ ,  $SD = 0.48$ ,  $t(42) = .54$ ).

Analyses were repeated in stratified samples for each class, based on the findings during participant observations that the extent to which students engaged in externalizing behaviors differed by class. Grade 3 Monroe students ( $n=15$ ) reported significantly higher ratings than the state sample of third grade students ( $n=5,299$ ) on the measures of fairness of rules (Monroe:  $M = 3.53$ ,  $SD = 0.52$ ; State:  $M = 3.21$ ,  $SD = 0.66$ ,  $t(14) = 2.43$ ,  $p = .03$ ) and respect for diversity (Monroe:  $M = 3.89$ ,  $SD = 0.24$ ; State:  $M = 3.54$ ,  $SD = 0.55$ ,  $t(14) = .44$ ,  $p = .00$ ). Grade 5 Monroe students ( $n=15$ ) reported significantly higher ratings than the Delaware sample of fifth grade students ( $n=5,436$ ) on measures of teacher-student relations (Monroe:  $M = 3.76$ ,  $SD = 0.32$ ; State:  $M = 3.39$ ,  $SD = 0.63$ ,  $t(14) = 4.42$ ,  $p = .00$ ), clarity of expectations (Monroe:  $M = 3.41$ ,  $SD = 0.35$ ; State:  $M = 3.31$ ,  $SD = 0.60$ ,  $t(14) = -2.46$ ,  $p = .03$ ), and the total school climate score (Monroe:  $M = 3.27$ ,  $SD = 0.40$ ; State:  $M = 3.24$ ,  $SD = 0.48$ ,  $t(14) = 2.18$ ,  $p = .00$ ). Grade 5 Monroe students ( $n=15$ ) reported significantly lower ratings than the Delaware sample of fifth grade students ( $n=5,436$ ) on the measure of respect for diversity (Monroe:  $M = 3.50$ ,  $SD = 0.61$ ; State:  $M = 3.78$ ,  $SD = 0.38$ ,  $t(14) = 4.75$ ,  $p = .00$ ). Based on these results, students at the Monroe reported more positive perceptions of teacher-student relations and clarity of expectations when compared to the state sample. Students at the Monroe reported more negative perceptions of safety when compared to the state sample.

Table 13

*Means and Standard Deviations for Subscale and Scale Scores for Students in Grades 3–5 on Part 1, School Climate for the Monroe and the State Sample (State Sample Data in Parentheses)*

Grade	<i>n</i>	Teacher-Student Relations		Student-Student Relations		Safety		Clarity of Expectations		Fairness of Rules		Respect for Diversity		Total Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3	15 (5299)	3.63 (3.56)	0.48 (0.55)	2.72 (2.90)	0.68 (0.70)	3.16 (3.34)	0.66 (0.66)	3.41 (3.41)	0.46 (0.57)	3.53 (3.21)	0.52 (0.66)	3.89 (3.54)	0.24 (0.55)	3.36 (3.32)	0.36 (0.45)
4	13 (5180)	3.49 (3.48)	0.52 (0.58)	2.67 (2.69)	0.56 (0.69)	2.85 (3.24)	0.72 (0.66)	3.18 (3.35)	0.50 (0.58)	2.86 (3.18)	0.71 (0.65)	3.59 (3.53)	0.51 (0.58)	3.08 (3.23)	0.46 (0.46)
5	15 (5436)	3.76 (3.39)	0.32 (0.63)	2.88 (2.64)	0.46 (0.70)	2.96 (3.16)	0.66 (0.70)	3.41 (3.31)	0.35 (0.60)	3.27 (3.13)	0.61 (0.70)	3.84 (3.50)	0.31 (0.61)	3.35 (3.16)	0.34 (0.51)
Total	43 (15814)	3.63 (3.48)	0.45 (0.60)	2.76 (2.75)	0.57 (0.71)	2.99 (3.25)	0.62 (0.68)	3.38 (3.36)	0.45 (0.59)	3.24 (3.17)	0.66 (0.67)	3.78 (3.51)	0.38 (0.59)	3.27 (3.24)	0.40 (0.48)

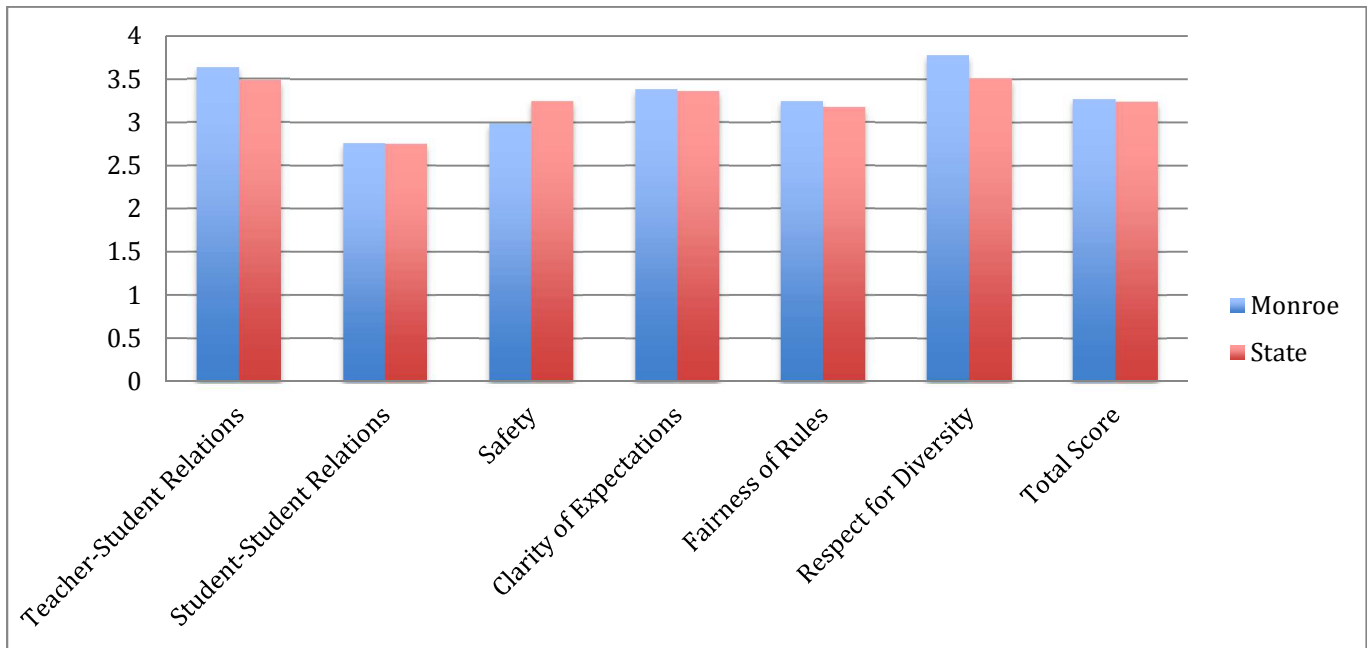


Figure 10. Elementary Student Mean Scores on Part I of the DSCS: A Comparison Between Monroe and State Sample.

Table 14

*One-Sample T-test Results Comparing Monroe Elementary Student Mean Scores on Part 1 of the DSCS to a State Sample*

Subscale	Grade 3			Grade 4			Grade5			Total		
	<i>t</i>	<i>df</i>	<i>p</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>t</i>	<i>df</i>	<i>p</i>
Teacher-Student Relations	0.59	14	.57	0.05	12	.96	4.42	14	.00**	2.23	42	.03*
Student-Student Relations	-1.04	14	.31	-0.11	12	.92	2.04	14	.06	0.13	42	.89
Safety	-1.53	14	.15	-1.98	12	.07	-1.19	14	.25	-2.73	42	.00**
Clarity of Expectations	.011	14	.99	-1.21	12	.25	2.46	14	.03*	0.35	42	.72
Fairness of Rules	2.43	14	.03*	-1.62	12	.13	0.87	14	.40	0.66	42	.51
Respect for Diversity	5.58	14	.00**	0.42	12	.69	4.75	14	.00**	4.73	42	.00**
Total Score	0.44	14	.67	-1.16	12	.27	2.18	14	.05*	0.54	42	.59

\* $p < .05$ . \*\*  $p < .01$ .

### **The Association of Student Perceptions of School Climate and Academic Outcomes**

The third aim of this study was to examine the association of student perceptions of school climate with academic outcomes. It was hypothesized that school climate would be associated with academic outcomes, even in analyses controlling for demographic factors (FARMS, gender, race), and earlier academic performance (ELA & Math). This aim examined whether the association between perceptions of school climate and academic outcomes were moderated by BD status. It was hypothesized that school climate would be associated with academic outcomes and that student perceptions of school climate would be more strongly associated with academic outcomes than teacher perceptions. Additionally, when BD status was added as a moderator variable it was predicted that the relationship between school climate and academic outcomes would be stronger for students without BD.

A Pearson Correlation was conducted to determine the relationship between general education teacher and special education teacher scores on the DCSC. The correlation between the two teachers was highly correlated and, unexpectedly, negative ( $r = -.77$ ), so a series of multiple regressions were completed to test which teachers' scores was a stronger predictor of academic performance. As shown in Table 15, the special education teacher scores on the DSCS were a stronger predictor of student academic outcomes when tested in comparison to 4 academic outcomes. As such, remaining analyses used only scores from special educators.

Table 15: *Regression Results of General Education Teacher and Special Education Teacher DSCS Scores on Student Achievement*

Teachers	Fall						Winter					
	Math			ELA			Math			ELA		
	$R^2$	F	$p$	$R^2$	F	$p$	$R^2$	F	$p$	$R^2$	F	$p$
General	.72	7.43	.00**	.51	3.13	.01**	.74	7.79	.00**	.41	1.91	.10
Special	.74	8.08	.00**	.52	3.22	.01**	.78	10.03	.00**	.39	1.75	.13

Individual students' school climate scores were regressed on student ELA and Math scores while controlling for special education teacher school climate scores and student FARMS eligibility, gender, race, and previous academic scores to determine the extent to which the independent variables were predictive of student academic outcomes. Tables 16 – 19 show the results of the regression analysis predicting ELA and Math outcomes from student total school climate scores at two points during the 2015–2016 academic year. In Model 1, the relationships between student perceptions of school climate and student fall ELA and Math, and winter Math achievement scores were not statistically significant when controlling for special education teacher school climate scores and student FARMS eligibility, gender, race, and previous academic scores (fall Math:  $R^2 = 0.74$ ,  $F(9, 26) = 8.08$ ; fall ELA:  $R^2 = 0.52$ ,  $F(9, 27) = 3.22$ ; winter Math:  $R^2 = 0.78$ ,  $F(9, 25) = 10.03$ ). Student perceptions of school climate were, however, negatively associated with student winter ELA achievement scores when controlling for special education teacher school climate scores and student FARMS eligibility, gender, race, and previous academic scores ( $R^2 = 0.39$ ,  $F(9, 25) = 1.75$ ). Further inspection of the result indicated one student outlier (who reported the lowest DSCS score and had among the highest winter ELA scores). When this student was removed from the analysis, the association between student DSCS and winter ELA scores was no longer significant.

Further, student academic outcomes were also associated with previous student academic scores in the prior year (spring). Associations were significant for Math (fall:  $\beta = 0.61, p = .00$ ; winter:  $\beta = 0.75, p = .00$ ) and ELA in winter ( $\beta = 0.45, p = .03$ ). Finally, special education teacher school climate scores were significantly associated with student Math academic outcomes in the winter ( $\beta = 0.28, p = .02$ ) and African American students had lower ELA achievement in the fall ( $\beta = -0.51, p = .00$ ).

When student BD status was added as an independent variable (Model 2), student perceptions of school climate were significantly, negatively associated with ELA achievement in the winter ( $R^2 = 0.47, F(10, 24) = 2.16, p = .02$ ). In addition, there continued to be no significant relationship between student perceptions of school climate and ELA or Math achievement in the fall (ELA:  $R^2 = 0.64, F(10, 26) = 4.59$ ; Math:  $R^2 = 0.74, F(10, 25) = 7.11$ ), or Math achievement in the winter ( $R^2 = 0.78, F(10, 24) = 8.71$ ). There were also no significant associations between BD status and academic outcomes in most areas, though students with BD had significantly lower fall ELA scores than their peers. In almost all cases, student academic outcomes were strongly associated with previous student academic scores in Math (fall:  $\beta = 0.59, p = .00$ ; winter:  $\beta = 0.76, p = .00$ ) and ELA in winter ( $\beta = 0.51, p = .01$ ). Student BD status was a negative predictor of ELA achievement in the fall ( $\beta = -0.41, p = .01$ ). Finally, similar to results from Model 1, special education teacher school climate scores were significantly associated with student Math academic outcomes in the winter ( $\beta = 0.27, p = .03$ ) and African American students had lower ELA achievement in the fall ( $\beta = -0.32, p = .045$ ).

Model 3 tested whether BD status moderated the relationship between student DSCS scores and academic outcomes. Results indicated that the interaction term was not significant for Math (fall:  $R^2 = 0.75$ ,  $F(11, 24) = 6.61$ ; winter:  $R^2 = 0.80$ ,  $F(11, 23) = 8.29$ ) or ELA (fall:  $R^2 = 0.64$ ,  $F(11, 25) = 4.07$ ; winter:  $R^2 = 0.51$ ,  $F(11, 23) = 2.15$ ) indicating that BD status did not moderate the relationship between student DSCS scores and academic outcomes. Further, as seen in Models 1 & 2, special education teacher school climate scores were significantly associated with student Math academic outcomes in the winter ( $\beta = 0.72$ ,  $p = .00$ ) and African American students had lower ELA achievement in the fall ( $\beta = -0.35$ ,  $p = .04$ ).

Finally, given the non-significant results, a series of exploratory models were tested to provide further information about the association between student DSCS scores and academic outcomes. Bivariate models were tested that included only student DSCS subscale scores and academic outcomes, without any covariates. Results indicated that there were no significant associations between school climate and academic outcomes. In another analysis, special education teacher DSCS scores were excluded from the models. Results did not change significantly. Additional analysis tested each model without special education teacher DSCS scores and, instead, controlled for classroom assignment in order to determine if teacher school climate scores were a product of clustering by classes. While results did not change significantly, being in the Grade 4 classroom was significantly associated with winter math scores in model 1 ( $p=.05$ ), but not models 2 or 3. Finally, models were also estimated with all variables except previous academic scores. In this case, the R-squared decreased considerably, however, overall results did

not change (i.e. student school climate scores remained non-significant). The best fitting model included special education teacher DSCS scores and student previous academic scores.

Table 16

*Regression Results of Student Perceptions of School Climate on Student Math Achievement in Fall (n=36)*

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>
Student DSCS Score	0.01	0.08	0.01	.92	-0.0	0.08	-0.00	.98	-.04	0.09	-0.06	.67
Special Educator DSCS	0.34	0.21	0.2	.12	0.36	0.22	0.21	.11	0.41	0.22	0.24	.08
Spring Math	0.81	0.17	0.61	.00**	0.78	0.18	0.59	.00**	0.74	0.19	0.55	.00**
FARMS	-0.01	0.06	-0.01	.92	-0.00	0.06	-0.01	.97	-0.01	0.06	-0.01	.93
Gender	-0.09	0.06	-0.17	.15	-0.09	0.06	-0.17	.15	-0.08	0.06	-0.15	.22
Race												
African American	-0.10	0.09	-0.15	.26	-0.09	0.09	-0.13	.34	-0.13	0.10	-0.19	.20
Asian	-0.24	0.13	-0.21	.08	-0.25	0.13	-0.21	.08	-0.25	0.13	-0.22	.07
Hispanic	-0.06	0.08	-0.10	.44	-0.06	0.08	-0.10	.45	-0.05	0.08	-0.09	.50
Other	-0.06	0.19	-0.04	.76	-0.07	0.20	-0.04	.72	-0.11	0.20	-0.07	.58
BD Status					-0.05	0.10	-0.07	.58	-0.87	0.77	-1.14	.27
BD Status x DSCS									0.26	0.24	1.08	.29
<i>R</i> <sup>2</sup>			0.74**				0.74**				0.75**	
F			8.08				7.11				6.61	

\**p* < .05. \*\* *p* < .01.

Table 17

*Regression Results of Student Perceptions of School Climate on Student ELA Achievement in Fall (n=37)*

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>
Student DSCS Score	-0.07	0.09	-0.13	0.41	-0.13	0.08	-0.24	.11	-0.15	0.09	-0.27	.10
Special Educator DSCS	0.14	0.22	0.11	0.52	-0.24	0.20	0.18	.23	0.26	0.20	0.19	.21
Spring ELA	0.25	0.18	0.24	0.18	0.32	0.16	0.30	.06	0.32	0.17	0.30	.06
FARMS	-0.08	0.06	-0.19	0.21	-0.05	0.06	-0.12	.43	-0.05	0.06	-0.12	.44
Gender	-0.01	0.06	-0.02	0.89	-0.01	0.06	-0.03	.81	-0.01	0.06	-0.02	.88
Race												
African American	-0.27	0.09	-0.51	0.00*	-0.17	0.08	-0.32	.045*	-0.19	0.09	-0.35	.04*
Asian	-0.03	0.14	-0.04	0.82	-0.02	0.13	-0.02	.87	-0.02	0.13	-0.02	.88
Hispanic	-0.04	0.08	-0.09	0.60	-0.02	0.07	-0.05	.77	-0.02	0.08	-0.04	.82
Other	-0.28	0.21	-0.22	0.18	-0.27	0.18	-0.21	.15	-0.28	0.19	-0.22	.15
BD Status					-0.25	0.09	-0.41	.01**	-0.58	0.70	-0.96	.41
BD Status x DSCS									0.11	0.22	0.56	.63
<i>R</i> <sup>2</sup>			0.52**				0.64**				0.64**	
<i>F</i>			3.22				4.59				4.07	

\**p* < .05. \*\* *p* < .01.

Table 18

*Regression Results of Student Perceptions of School Climate on Student Math Achievement in Winter (n=35)*

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>
Student DSCS Score	0.05	0.06	0.09	.42	0.05	0.06	0.09	.42	0.02	0.07	0.04	.76
Special Educator DSCS	0.38	0.15	0.28	.02*	0.37	0.16	0.27	.03*	0.45	0.17	0.33	.01*
Spring Math	0.81	0.13	0.75	.00**	0.82	0.13	0.76	.00**	0.77	0.13	0.72	.00**
FARMS	0.01	0.05	0.03	.77	0.01	0.05	0.03	.80	0.01	0.05	0.01	.92
Gender	-0.05	0.04	-0.11	.28	-0.05	0.05	-0.11	.30	-0.04	0.04	-0.09	.39
Race												
African American	0.01	0.06	0.01	.91	0.01	0.66	0.00	.99	-0.03	0.07	-0.05	.69
Asian	0.01	0.10	0.01	.91	0.01	0.10	0.02	.89	0.01	0.10	0.01	.95
Hispanic	0.06	0.06	0.12	.30	0.06	0.06	0.13	.30	0.06	0.06	0.12	.31
Other	-0.07	0.14	-0.06	.63	-0.07	0.14	-0.05	.64	-0.10	0.14	-0.08	.51
BD Status					0.02	0.08	0.04	.76	-1.21	0.96	-1.85	.22
BD Status x DSCS									0.38	0.29	1.89	.21
<i>R</i> <sup>2</sup>	0.78**				0.78**				0.80**			
<i>F</i>	10.03				8.71				8.29			

\**p* < .05. \*\* *p* < .01.

Table 19

*Regression Results of Student Perceptions of School Climate on Student ELA Achievement in Winter (n=35)*

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>
Student DSCS Score	-.021	0.10	-0.38	.04*	-0.24	0.09	-0.43	.02*	-0.28	0.10	-0.51	.01**
Special Educator DSCS	0.07	0.25	0.06	.77	0.16	0.24	0.12	.51	0.27	0.25	0.21	.29
Spring ELA	0.45	0.20	0.45	.03*	0.51	0.19	0.51	.01*	0.53	0.19	0.54	.01**
FARMS	-0.02	0.07	-0.05	.79	0.00	0.07	0.01	.97	-0.00	0.07	-0.01	.96
Gender	-0.00	0.07	-0.01	.97	-0.01	0.07	-0.03	.85	-0.00	-0.07	-0.01	.98
Race												
African American	-0.12	0.09	-0.25	.20	-0.03	0.10	-0.06	.76	-0.06	0.10	-0.11	.59
Asian	-0.15	0.21	-0.13	.47	-0.15	0.20	-0.13	.45	-0.17	0.19	-0.14	.39
Hispanic	-0.02	0.09	-0.04	.83	-0.01	0.09	-0.03	.89	-0.01	0.09	-0.01	.94
Other	-0.08	0.22	-0.07	.72	-0.05	0.21	-0.04	.81	-0.06	0.21	-0.05	.76
BD Status					-0.22	0.11	-0.36	.06	-1.99	1.41	-3.18	.17
BD Status x DSCS									0.54	0.43	2.85	.22
<i>R</i> <sup>2</sup>		0.39					0.47					0.51
<i>F</i>		1.75					2.16					2.15

\**p* < .05. \*\* *p* < .01.

## CHAPTER 5

### DISCUSSION AND IMPLICATIONS

The overarching goal of this research was to examine the quality of school climate within a single school that demonstrated strong academic outcomes while including a high percentage of students with BD in general education classrooms. The research explored (a) the characteristics of the climate in a school that included students with BDs, (b) the extent to which there was agreement between teacher and student perceptions of school climate in this elementary school, and (c) the extent to which student perceptions of school climate were associated with academic outcomes, when controlling for individual-level demographic factors, as well as to what extent having a BD moderated the relationship between school climate and student academic outcomes.

Results revealed that (a) teachers and administrators at the Monroe described implementing purposeful techniques and teaching methods to support all students, specifically those with BD, (b) teachers and students differed in their perceptions of school climate, and (c) student perceptions of school climate were not significantly associated with academic outcomes in the full sample, or for students with and without BD. A detailed discussion of each aim will follow beginning with the two quantitative aims assessing the extent to which there was agreement between teacher and student perceptions of school climate and the extent to which student perceptions of school climate were associated with academic outcomes. This section concludes with a discussion of the qualitative aim that provides context to explain the quantitative results.

## **Main Findings**

**Agreement on perceptions of school climate.** Students and teachers completed complementary forms of the School Climate subscale of the Delaware School Climate Survey to assess school climate. It was hypothesized that differences in perceptions of climate would exist between students with and without BD, between general and special education teachers, and between teachers and students. Results indicated that teachers (both general and special) and students differed in their perceptions of school climate. In particular, general education teachers' perceptions differed from and were more negative than special education teacher perceptions. Students with BD, however, did not differ significantly from students without BD in any subscale of the DSCS except for *clarity of expectations*. The results that teacher and student ratings of school climate are discrepant are consistent with findings from other researchers who reported that teacher ratings of the overall climate were not associated with student ratings of overall climate (Mitchell et al., 2010; Raviv et al., 1990). Furthermore, a larger body of literature indicates that there are often multi-informant discrepancies in student and teacher ratings and that these discrepancies might be meaningful (De Los Reyes, Thomas, Goodman, & Kundy, 2013). However, results are inconsistent with the findings from a prior study by Espelage et al. (2014) in which teachers' perceptions of school climate were correlated with student perceptions, specifically in their reports of bullying and victimization. Although Espelage et al. (2014) measured perceptions of school climate, the measures used differed from those in the current study.

Additional results indicated that students reported more positive perceptions of school climate than general education teachers. These findings are inconsistent with other researchers who found that teachers tended to report a more positive climate than their students (Fisher and Fraser, 1983). This divergence from prior studies was possibly due to students having a great deal of empowerment and an active role in the Monroe, because of the implementation of a social and emotional curriculum (i.e. Responsive Classroom) that involves students in the development of social and behavioral norms (Mitchell et al., 2010). This finding raises questions about whether implementing purposeful methods aimed at the social, emotional, and behavioral development of students, can promote more positive perceptions of school climate in both students and teachers, even when students with BD are included.

General education teachers' assessment of the DSCS subscale *fairness of rules* was significantly and negatively correlated with student perceptions of fairness. Students reported more positive perceptions of the fairness of school rules, while general education teachers, specifically, reported more negative perceptions of the fairness of rules. These results are broadly consistent with findings from other researchers who reported that teachers may assess climate on a group level (Mitchel et al., 2010) as oppose to an individual assessment of climate characteristics. In particular, students may be reporting perceptions based on their individual experiences while general education teachers may be reporting perceptions based on group level characteristics.

Similar to students, special education teachers may also be reporting perceptions of climate based on individual factors. One hypothesis to explain why general and special

education teachers differ in their perceptions of school climate might be that general education teachers tend to focus on the whole (or general) population of students, whereas, special education teachers tend to focus on individuals. With regard to perceiving how fair the school's rules are, the special education teachers may be viewing the implementation of rules as a way to support individual students, and not necessarily the group. The individualization of rules is more likely to occur in settings that include students with significant disabilities, especially those with BD. Special education teachers may be more likely than general education teachers to view their role as one in which they individualize rules and classroom structures. In doing so, special education teachers may be providing students with an understanding of why following rules is important and increase students' abilities to do so. This differs from a group level perspective in which teachers may expect that all students follow the rules in the same way and with the same expectations.

Taken together, these findings suggest that teachers may need to be mindful that their perceptions of climate may differ from that of their colleagues and their students, especially those students with BD. It is possible that students in inclusive settings may appear to understand that classmates have different needs and thus require individualized interventions or are held to different expectations. Teachers and administrators at the Monroe who implemented individualized approaches and expectations do not appear to be negatively effecting Monroe's school climate from the students' perspective.

A comparison between Monroe student DSCS scores and a state sample indicate significant differences relative to teacher-student relations, safety, and respect for

diversity. Monroe students reported more positive ratings of teacher-student relations and respect for diversity than the Delaware sample, and more negative ratings of safety. There were no significant differences between Monroe student ratings and the state sample relative to student-student relations, clarity of expectations, fairness of rules, and total school climate scores. This suggests, that despite the small sample size, Monroe students rate their school climate as good as, or better than, state ratings, with the exception of safety. It is possible that ratings of safety are lower at the Monroe because of the high percentage of students with BD. However, perceptions of safety could also be related to students' race (studies find that ethnic/racial minority students perceive school as more unsafe than white students; Bowen, Bowen, & Richman, 2000).

A comparison between Monroe teacher DSCS scores and a state sample indicates no statistically significant differences relative to teacher-student relations, student-student relations, teacher-home communications, safety, clarity of expectations, fairness of rules, respect for diversity, and total school climate scores. This suggests that there is no significant difference between teacher perceptions of school climate at the Monroe when compared to those in a state sample even though the Monroe includes a large percentage of students with BD. Compared to the state sample, teacher scores were lower, but in several cases, the students from the Monroe reported a more positive climate than the Delaware sample.

In general, it is striking that students and teachers at the Monroe rate school climate as being equal to or better than the Delaware state sample considering that 35% of the Monroe's student body has a BD. It is possible that Monroe's climate is

comparable to the Delaware sample because teachers at the Monroe actively work to develop and maintain a climate that promotes the social, emotional, behavioral, and academic development of all students.

**Perceptions of school climate associated with academic outcomes.** It was hypothesized that school climate would be associated with academic outcomes. Further, it was hypothesized that the association between school climate and academic outcomes would persist in analyses controlling for demographic factors (FARMS, gender, race), and earlier academic performance (ELA & Math). Results of this study, however, were that student perceptions of school climate were generally unrelated to their academic outcomes, even in the absence of control variables. The one exception was that student DSCS scores were *negatively* associated with winter ELA scores. After further inspection of this unexpected result, it appeared that a single outlier was influencing this association. When that one student was excluded from analyses, the association became non-significant. Further, there was no significant interaction between BD and DSCS scores in association with academic achievement, suggesting that these results were consistent regardless of student BD status.

When student BD status was added to the models, the relationship between school climate and academic outcomes was also not significant. These results differ from previous research that found the presence of classmates with serious emotional problems to be related to reductions in (a) student academic scores in ELA and Math (Fletcher, 2010) and (b) student self-regulation, academic engagement, and interpersonal skills (Gottfried, 2014). It is possible that the quality of antecedent management and direct

social/emotional skills and instruction provided by the teachers at the Monroe was effective in preventing this effect. Additionally, studies investigating the effects of classmates with BD on others may not include investigations of the types of supports and interventions provided to students with BD, nor might they have investigated the skills teachers have in managing these challenges. The teachers at the Monroe described in detail their approach in managing these challenges and supporting a positive climate.

Importantly, special education teacher perceptions of school climate were significantly associated with student math achievement in the winter. These results are similar with those reported by Bear, Yang, Pell, and Gaskins (2014) who not only found a positive correlation between teacher perceptions of school climate and elementary student math and ELA achievement, but also used the DSCS as their school climate measure. Sherblom et al. (2006) similarly found teachers' feelings of belonging (an element often associated with school climate) were positively correlated with student math achievement. However, both prior studies focused on general education teachers in mainstream classes. The findings of the current study suggest that as climate becomes well established during the school year in an inclusion program for students with BD, teacher perceptions, specifically those held by special education teachers, may be related to their students' achievement in math. These results are similar to those reported by McLean and Connor (2015) that found teachers' emotional states to be related to both the classroom learning environment and student math achievement. Thus, evidence suggests that teacher perceptions of school climate may be related to student academic performance. One way that this association was further assessed was in an exploratory

model that removed teacher DSCS scores and instead included only dummy variables for classrooms to account for student clustering. Here, being in the Grade 4 classroom was significantly associated with winter math scores in model 1 ( $p=.05$ ), but not models 2 or 3. This finding raised the question of whether teacher attitudes about school climate may be related to student academic performance at the classroom level.

It was hypothesized that BD status would moderate the association of student perceptions of school climate and academic achievement. However, in models adding the interaction between BD status and school climate, the association of the interaction term with academic outcomes was also not significant. This suggests that the relationship between school climate and academic outcomes does not change as a function of student BD status. This finding was true for students with and without BD; in both cases, school climate was not significantly associated with academic outcomes.

Overall, quantitative analyses produced non-significant results. These non-significant results may be due to the small sample size and the underrepresentation of students with BD in the sample. It is also possible that at this school, perceptions of school climate are not directly related to student academic outcomes and that there are other or more powerful mechanisms influencing student academic success, or indirect pathways through which school climate influences academic outcomes. While the current study investigates academic outcomes, there are many reasons to focus on school climate as a potential leverage point for improving student outcomes. For example, it is possible that some characteristics of the Monroe school climate (e.g. structure, mission, community, and skilled teaching) discovered through qualitative methods may be serving

as a protective factor between perceptions of school climate and the academic outcomes for students with and without BD.

**Characteristics of school climate.** It was hypothesized that the teachers who participated in this study would describe implementing purposeful interventions they learned through building-based professional development activities and that teachers would articulate a shared vision of inclusive education held among faculty. Four major themes and 11 sub-themes emerged from this study: (a) school structure (subthemes: school/class size, teaching model), (b) mission (subthemes: philosophy and culture of inclusion), (c) community (subthemes: partnerships, relationships, belonging, and teaching), and (d) academics (subthemes: teaching, instruction, teaching qualities, professional development, and leadership). These results are similar to those presented by Wang and Degol (2016) who reviewed the currently available literature, domains, dimensions, and indicators of school climate. Their analysis yielded a model representing 4 major domains and 13 dimensions of school climate: (a) safety (e.g. physical safety, discipline); (b) community (e.g. connectedness, respect for diversity); (c) academic (e.g. teaching and learning, leadership); and (d) institutional environment (e.g. structural organization, availability of resources). Among the four domains identified by Wang and Degol (2016), the findings from Monroe indicate the presence of two of the four domains (community and academic). The other two domains extracted from research at Monroe (school structure and school mission) are consistent with some of the 13 dimensions identified by Wang and Degol (2016). This suggests that the major themes presented through this qualitative analysis are consistent with current school climate research.

As previously mentioned, Bronfenbrenner's ecological systems theory provides a construct in which to understand how the school environment affects the behaviors of students and teachers. Often programmatic decisions to support students with BD function at the individual level, without taking into account possible environmental factors (e.g. individualized behavior plans, students crisis plans, and individual counseling). Students with BD who receive such individualized programming are at risk of being unable to generalize learned coping and behavior regulation skills into a variety of environments if the environment itself has not been part of the programming. It is possible that the Monroe has found much success for many of their students because they address each individual student, with BD and without BD, the types of interactions they have with each other, and how the overall environment supports student needs. Wang, Selman, Dishion, and Stormshak (2010) postulate that in order to support healthy child development, the school environment within which the child interacts must be examined and improved instead of only addressing the selected characteristics of the individual child. Based on interviews and observations, it appears that the teachers and administrators at the Monroe consider how the overall school environment can support their students with and without BD. For example, some teachers and administrators articulated how the social and emotional instruction provided to students is consistent throughout the grades. Thus, creating an environment that is supportive of students with BD.

Sameroff's transactional model is another construct that can be used to explain how elements of Monroe's climate support the successful engagement of students. The

model assumes that the contact between an individual and their environment is a transaction, which is to say that both elements are influenced and altered by the other. These qualitative findings are not only illustrative of effective programming for students with BD but are also reflective of the cyclical relationship between individuals. The results presented here suggest that the teachers at the Monroe establish trusting relationships with their students and earn their students' trust, specifically those students with BD. This is consistent with research finding that faculty who report positive climate characteristics such as teacher trust in students, student trust in teachers, and student-perceived academic focus are better able to deliver high quality teaching and learning (Adams, Ware, Miskell, & Forsyth, 2016; Mihalas et al., 2009). These positive interactions between teachers and students appear to contribute to supporting the social, emotional, and behavioral needs of students.

Furthermore, teachers and students not only influence the quality of school and classroom climate, but are also influenced by that climate they help to create. For example, teachers at the Monroe model acceptance and respect for their students with BD. This modeling may influence how students without BD perceive their peers with BD, likely in a positive and empathetic way. This was exemplified when a student was observed to assist an emotionally dysregulated student on the playground and in a teacher's description of how peers empathize with students who struggle to manage their emotions. In order to foster a positive climate that provides a foundation for student engagement and performance in school, it is essential to examine these constructs from the lens of the complex interactions between individuals and between individuals and

their environment.

Finally, results confirm the hypothesis that teachers implement purposeful interventions and articulate a shared vision of inclusive education. According to the information obtained through interviews, document analysis, and observations, some teachers not only articulated a vision, but also participated in monthly, building-based, professional development activities that were determined by the building-based administration. Further, administrators integrated the teaching of therapeutic interventions into their sessions on mandatory district curricular initiatives. Thus, teachers balanced the delivery of academic instruction with social, emotional, and behavior support. According to Simpson et al. (2011), effective programming for students with BD includes (a) a qualified and committed faculty, (b) environmental supports, (c) effective behavior management, (d) social skills instruction, (e) strong academic support systems, (f) community involvement, (g) community support, and (h) ongoing self-assessment. Based on observation, document analysis, and interviews, the Monroe climate includes the above-listed elements, suggesting it might be an example of a model school for including students with BD.

### **Implications**

One implication of this study is that teachers and administrators may find it helpful to consider whether and how they perceive characteristics of school and classroom climate differently than their students. Acknowledging that differences exist might encourage teachers and administrators to take a broader perspective when they consider elements of climate. For example, students with positive perceptions of support,

regardless of teacher perceptions, are more likely to perceive themselves as academically capable and belonging to the school (Hughes, 2011). Discrepancies in student and teacher perspectives might also provide important leverage points for conversation about how to create a shared vision of the school and what steps are needed to improve school climate.

Another implication is that school climate was not associated with academic outcomes in the current study. However, students at the Monroe report having positive perceptions of their school climate regardless of whether or not they have a BD and academic scores have increased over time. It is possible that there is a non-significant association between school climate and academic achievement because of the effective supports and interventions teachers implement to support the social, emotional, and behavioral development of all children. Although contrary to the initial hypothesis, this finding might reflect that teachers are able to effectively support the diverse social, emotional, and behavior needs of their students such that feelings about school climate do not impact academic success.

Finally, the qualitative findings describe strategies that might be helpful for teachers and administrators to consider implementing when including students with BD in general education classrooms. First, schools can begin to improve their ability to meet the needs of students with BD by adopting a shared philosophy that all students can succeed, by involving students in defining social norms, and implementing research-based social/emotional curriculum. This includes adopting a climate where faculty and staff assume responsibility for the progress of all students, not just those in their class. This recommendation is consistent with research that indicates the adoption of a shared

philosophy of inclusion is required if all students and all faculty are to benefit from an inclusive model (Causton-Theoharis, Theoharis, Bull, Cosier, & Dempf-Aldrich, 2010).

Second, one of the more unique findings was how teachers at the Monroe described being transparent with their students about their peers' learning differences, emotional growth, and behavioral control. Based on interviews and observations, it appears that openness about students with BD, specifically, facilitates opportunities to teach students how to support their peers, advocate for themselves, and develop empathy for their classmates. Teachers described explicitly teaching their students without BDs how to respond to their peers with BDs when they are emotionally dysregulated and exhibiting challenging behaviors. Being transparent about student behaviors, challenges, and progress may destigmatize the vulnerability of emotional meltdowns and promote a culture of inclusion.

Further, evidence also suggests that students at the Monroe without BD's also adopt a shared responsibility for supporting the emotional wellbeing of their peers with BD's. In this study, one student was observed to provide emotional support to a younger peer while playing on the playground. It is possible that students provide support to their peers because their teachers are modeling this behavior. Research has long suggested that not only will children imitate the behaviors they observe, but children will engage in these behaviors when they themselves are in positions of power (Gelfand, Hatmann, Lamb, Smith, Mahan, & Paul, 1974). Qualitative results indicate that students at the Monroe who observe their teachers to execute effective and empathetic responses to student behavior may do the same when they are in positions of social power.

Third, schools that routinely promote a shared philosophy of accepting student differences and believe that all students can succeed no matter their limitations may find that their students exhibit stronger academic, social, emotional, and behavioral outcomes. At the Monroe, students and faculty were observed to gather every morning and pledge their commitment to not only working hard, but to believe in themselves and act with kindness and love, elements of the Monroe's philosophy. Although typically reserved for spiritual and meditative practices, engaging in daily, positive affirmations or pledges can have an effect on pro-social feelings, student self-efficacy, and academic outcomes (Thomaes, Bushman, de Castro, & Reijntjes, 2011). According to their study examining the effects of value-affirmations on young adolescents, Thomaes et al. (2011) found that students who engaged in value affirmations showed increased pro-social feelings and behaviors, especially among those students classified as antisocial. Therefore, engaging in practices such as reciting affirmations consistent with a shared philosophy may contribute to positive student social, emotional, behavioral, and academic outcomes, especially among those with emotional and behavioral disorders.

Finally, schools that provide all students with access to tools that support emotional regulation may find an increase in a students' ability to independently self-monitor their state of regulation and a decrease in stigmatization. One of the administrators at the Monroe emphasized the importance of ensuring that all students had access to privacy boards, sound silencing headphones, and sensory integration equipment (e.g. seat cushions, fidget tools). In doing so, use of tools and strategies to regulate emotional and behavioral states were less stigmatizing and more normalized. This

practice is consistent with the benefits of adopting a universal design for learning (UDL) framework. This framework emphasizes the equitable distribution of educational resources in order to support the learning needs of all children, not just those with disabilities (Sailor, 2015). Furthermore, according to Johnson-Harris and Mundschenk (2014), adopting principles of UDL (i.e. multiple means of representation, action and expression, and engagement) may provide a way for teachers to engage all learners, in particular those with BDs.

### **Limitations**

**Sample.** It is important to highlight the limitations to this study. Mainly, it is small in size and scale and therefore, the findings are limited to one school and not generalizable. It is possible that analyses were underpowered, leading to non-significant results. However, the Monroe setting and the current participants were chosen purposefully because of the specific and unique student population (students with BD), in addition to the school's story of moving to full inclusion and observing a subsequent increase in students' academic achievement. Unfortunately, students below Grade 3 could not be included in this study because the school climate measurement tool was only validated for students in Grades three and above. More robust findings may have been found if the sample included students in Grades Pre-K through two.

The number of students with BD who participated in this study was not a representative sample of the school. The sample included five students with BD and the school serves 57 students with BD. This figure represents only 8% of the 35.8% of students with a BD. Therefore, analyses testing the moderating effects of BD status on

the relationship between school climate and academic outcomes should be interpreted with caution.

**Perceptions.** Students involved in this study may respond more positively to questions on the school climate survey than they actually perceive their school climate to be because data were collected in their classroom environment within the presence of their teachers and peers (Rowe, Sangwon, Baker, Kamphaus, & Horne, 2010). The presence of their teachers may have influenced children to report characteristics that would be pleasing to adults. Similarly, teachers may also respond more positively on the school climate scale because their responses may reflect how they want their school climate to be (or be seen by the researcher) and not what it actually is (Fisher & Fraser, 1983), especially with respect to teacher-student relationships (Raviv et al., 1990).

**Measurement Instruments.** The instruments used to measure school climate and academic outcomes present some limitations. First, the DSCS did not measure, nor was it intended to measure all aspects of school climate, specifically relations among teachers, staff and administration (Bear et al., 2014). Second, making a comparison to the state sample may be limited because of the current study sample size and a lack of knowledge about comparability of student and school profiles of those included in the Delaware study. Third, the brevity of the survey limited the scope of the survey's reliability and the scope of the aspects of school climate measured. However, it was the brevity of the survey that made it easy to implement on a large scale. Second, as previously mentioned, this study did not measure or include variables such as student cognitive abilities, student self-control, and student self-efficacy, which could be important factors to consider when

examining the relationship between school climate and student academic outcomes. However, qualitative methods were employed to offset the limitations of the survey tool. The qualitative findings offer more detail and additional elements of school climate that were not captured by the DSCS.

Using District Determined Measures presents another limitation. These assessments were created by a private web-based company and were not necessarily a direct reflection of academic content taught by Monroe's classroom teachers. Therefore, the DDM scores used in this study may not be a true reflection of student academic performance. However, using DDM's was a preferable choice over using state assessment results. State assessment results were only available from the previous school year and would not have been available for Grade three. Also, the available state scores would have reflected academic achievement from a school climate six or more months earlier, which would have created more complicated measurement issues.

Observer effects present another limitation in that people may change their behavior because they know they are being observed. To minimize this bias, participants were not asked to perform specific tasks or adjust their behavior in any way. The biases that may come from studies that employ observation as its primary methodology would not occur in this study because of the multiple qualitative techniques being used (Angrosino, 2007; Patton, 2002).

Interviewing also presents some limitations. It is possible that participant responses may be distorted due to personal bias, anger, and anxiety. According to Patton (2002), interviews can be affected by the emotional states of both the interviewer and the

interviewee. This is especially true when interviewing teachers and administrators about how they support a very vulnerable population of children who may have challenging personal histories.

Completing a document analysis has limitations in that the documents obtained may be incomplete or inaccurate. Document analysis, however, may provide a behind-the-scenes look at a program that may not be directly observable. However, by using a variety of sources and resources, the researcher is able to build on the strengths of each type of data collection while minimizing the weaknesses of any single approach (Patton, 2002).

**Researcher Bias.** Researcher bias was also a limitation. The primary investigator for this research project had experience working with students with disabilities, specifically those with BDs and a history of advocating for inclusion in general education classrooms. These previous experiences may have influenced the impressions made through observations and interviews. Furthermore, the researcher may have unintentionally distorted the data to support a desired mission to support the integration and support of students with BD in general education classrooms.

## **Conclusions**

This research study considers the relationship between school climate and student academic outcomes in elementary classrooms that include students with BD through a mixed methods design involving surveys, interviews, observations, an analysis of school documents, and an analysis of student academic outcomes. Results revealed that (a) teachers and administrators at the Monroe described implementing purposeful techniques

and teaching methods to support all students, specifically those with BD, (b) teachers and students differ in their perceptions of school climate, and (c) student perceptions of school climate was not associated with academic outcomes. One of the main contributions of this study includes adding to an important research gap addressing the link between school climate and academic outcomes among students with BD. The inclusion of students with behavior-related disorders continues to become increasingly prevalent in general education classrooms, therefore the nature of this research has implications for the ways schools and districts effectively support this population. Another contribution is that this study provides data on a unique and potential “model” school for the inclusion of students with BD. Findings have the potential to inform best practices when including students with behavior-related disorders. Finally, this study uses a multi-informant approach, a method that researchers have emphasized as being important when understanding school climate (Mitchel et al., 2010). With the development of tools, such as the DSCS, studying different perspectives with an instrument that can make direct comparisons between students and teachers provides an ability to better understand school climate.

The findings from this study emphasize the importance of investigating elements of school climate through qualitative methods in order to account for factors that may not be captured by surveys and questionnaires. In this study, the analysis of interviews, observations, and document analysis provided a window into the strategic and specialized nature of the interventions teachers and administrators implement to support the inclusion of students with BDs. Even though the finding that school climate was not associated

with academic outcomes was a departure from a large body of research that supports this relationship, the finding that BD status does not moderate the relationship between school climate and academic outcomes may be evidence of the effectiveness of providing specialized interventions to students with BD.

Future research should examine the experiences of school climate and academic outcomes among students with BDs in other schools to increase the available sample size. In addition, the DSCS offers a parent version of the survey. In the future, including parent perceptions may provide a more in-depth picture of school climate. Finally, a longitudinal study following students at the Monroe into middle and high school would provide an opportunity to investigate whether students who learn self-regulation and behavior management skills generalize to their next school environment.

Supporting the social, emotional, and behavioral development of all children, especially those with behavior-related disorders, requires teachers to acquire a specific skill set. Providing adequate preparation for teachers and administrators to meet the needs of students with BDs is essential to their success in school and in the community. It is likely that the outcomes of students with behavior related disorders will improve if educators understand how to support them in general classroom settings.

## Appendix A

Percent of children ages 6–21 served under IDEA in 2012, distributed by disability type and the educational setting (U.S. Department of Education, 2016).

*Percent of children ages 3–21 served under IDEA in 2012, distributed by disability type and the educational setting for students 6–21 (U.S. Department of Education, 2016).*

Type of Disability	Total Number served under IDEA (In thousands)	Percentage included in general education classroom			Percentage in other settings*
		80% or more/day	40–79%/day	Less than 40%/day	
All students with disabilities	6,464	61.20	19.70	13.90	5.20
Autism	538	39.50	18.10	33.30	9.20
Deaf-blindness	1	21.00	11.40	34.70	32.90
Developmental delay	410	62.30	19.50	16.60	1.70
Emotional disturbance	354	44.00	17.80	20.40	17.80
Hearing impairments	77	57.60	16.40	12.60	13.40
Intellectual disability	425	16.50	27.00	49.10	7.50
Multiple disabilities	132	12.90	16.30	46.40	24.40
Orthopedic impairments	56	54.00	16.20	21.80	7.40
Other health impairments	817	63.70	22.40	9.80	4.10
Specific learning disabilities	2264	66.70	25.00	6.40	1.90
Speech or language impairments	1334	86.80	5.40	4.30	3.00
Traumatic brain injury	26	49.00	22.40	20.10	8.60
Visual Impairments	28	64.00	13.30	11.30	11.50

\* Includes placements in separate school for students with disabilities, separate residential facility, parentally placed in regular private schools, homebound/hospital placement, and correctional facility.

## Appendix B

Items on Delaware School Climate Survey-Teacher and Staff by Subscale

*Items on Delaware School Climate Survey-Teacher and Staff by Subscale (Bear & Yang, 2011)*

Subscale	Items
Teacher-Student Relations	7. Teachers care about their students
	17. Teachers listen to students when they have problems.
	22. Adults who work in this school care about the students.
Student-Student Relations	1. Students treat each other with respect.
	6. Students get along with each other.
	11. Students are friendly with each other.
	16. Students care about each other.
Teacher-Parent Communication	30. Teachers listen to the concerns of parents.
	31. Teachers do a good job communicating with parents.
	32. Teachers show respect toward parents.
	33. Teachers work closely with parents to help students when they have problems.
	34. Parents are informed not only about their child's misbehavior, but also about good behavior.
Safety	4. This school is safe.
	19. Students feel safe in this school.
	24. Students know they are safe in this school.
Clarity of Expectations	10. Students know how they are expected to act.
	15. Students know what the rules are.
	20. This school makes it clear how students are expected to act.
Fairness of Rules	3. The school rules are fair.
	8. The consequences of breaking school rules are fair.
	18. The school's Code of Conduct is fair.
Respect for Diversity	2. Teachers treat students of all races with respect.
	12. Adults in this school care about students of all races.
	27. The color of your skin doesn't matter to teachers in this school.

## Appendix C

Items on Delaware School Climate Survey-Student Grades 3–6 by Subscale

*Items on Delaware School Climate Survey-Student Grades 3–6 by Subscale (Bear & Yang, 2011)*

Subscale	Items
Teacher-Student Relations	7. Teachers care about their students
	17. Teachers listen to students when they have problems.
	22. Adults who work in this school care about the students.
Student-Student Relations	1. Students treat each other with respect.
	6. Students get along with each other.
	11. Students are friendly with each other.
	16. Students care about each other.
Safety	4. This school is safe.
	19. Students feel safe in this school.
	24. Students know they are safe in this school.
Clarity of Expectations	10. Students know how they are expected to act.
	15. Students know what the rules are.
	20. This school makes it clear how students are expected to act.
Fairness of Rules	3. The school rules are fair.
	8. The consequences of breaking school rules are fair.
	18. The school's Code of Conduct is fair.
Respect for Diversity	2. Teachers treat students of all races with respect.
	12. Adults in this school care about students of all races.
	27. The color of your skin doesn't matter to teachers in this school.

Appendix D

Parent and Student Recruitment Letter

Boston University School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



Dear Parents and Guardians,

I hope this letter finds you well. I am a doctoral student in the Boston University School of Education and am writing to request your help with a research study. I am studying the relationship between school climate and academic outcomes in inclusive classroom settings and will be seeking your consent for your child(ren) to participate. I am partnering with Mr. Baker to survey Monroe elementary students in Grades 3, 4, & 5 on their perceptions of school climate. This survey will take only 20 minutes of class time. In addition, I will be silently observing various activities during 2 school days that will not involve direct contact with your child(ren). Finally, I will link survey responses with student school records to study the relationship between school climate and academic performance. It is our hope that this information will support the improvement of inclusive programs at the Monroe and other schools for students both with and without disabilities.

It would be very helpful if you would allow your child(ren) to participate in this study and share their perspectives on school climate. Principal Baker and I will invite you to an information session, where I will inform you of the details of this project and answer any questions. In the meantime, if you have any questions, please contact me at [svinnes@bu.edu](mailto:svinnes@bu.edu).

Thank you in advance for considering my request for participation in this project. Please feel free to discuss this study with your child(ren).

Suzanne Vinnes  
Doctoral Student  
School of Education  
Boston University  
[Svinnes@bu.edu](mailto:Svinnes@bu.edu)

Appendix E

Teacher and Administrator Recruitment Letter

Boston University School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



Dear Teacher/Administrator,

I hope this letter finds you well. I am a doctoral student in the Boston University School of Education and am writing to request your help with a research study. I am studying the relationship between school climate and academic outcomes in inclusive classroom settings and will be seeking your consent to participate. I am partnering with Mr. Baker to survey administrators, elementary students and teachers in Grades 3–5 on their perceptions of school climate. At this stage in the research study I am looking for administrators and 3<sup>rd</sup> – 5<sup>th</sup> grade classroom teachers (general and special educators), such as yourself, to participate in this study. Participation will involve completing a school climate survey, completing questionnaires about individual student behaviors, participating in an interview, and allowing school and classroom observations during the late fall and winter of the 2015–2016 school year. It is my hope that this information will support the improvement of inclusive programs for students at the Monroe and other schools. To thank you for your time, participating teachers and administrators will receive a \$50 Barnes and Noble gift card.

It would be very helpful if you would participate in this study and share your perspectives on school climate and including students with behavior related disorders. If you have any questions, please contact me at [svinnes@bu.edu](mailto:svinnes@bu.edu).

Thank you in advance for considering my request for participation in this project.

Suzanne Vinnes  
Doctoral  
Student  
School of Education  
Boston University  
[Svinnes@bu.edu](mailto:svinnes@bu.edu)

Appendix F

Parent Consent Form

**Boston University** School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



April 4, 2016

Dear Parent or Guardian:

Your son or daughter has been invited to join a research study to look at school climate in inclusive settings and how school climate relates to academic outcomes. We are also interested in understanding what characterizes the school climate at the Monroe. This document provides information about the research project, your child's participation, and possible risks and benefits to them. All parents who return this consent form will be entered into a raffle to receive one of two \$100 gift card to Amazon. In addition, each child will be offered a sticker and a pencil if they return a signed consent form, regardless if permission is granted.

For your son or daughter, participation in the study involves filling out a one-time survey on school climate that will take approximately 20 minutes of class time. Our research team will use school records to link survey responses to student scores on district academic assessments that are part of their regular school assessment. In addition, a researcher will observe select classes at the school. All students, teachers, and administrators at Monroe Elementary School will be invited to participate (approximately 100 students, 6 teachers, and 3 administrators). This study is funded by Boston University's School of Education.

Participating in this research presents no more than minimal risk of harm to your child. The primary risks involve breach of confidentiality and possible subject matter discomfort. To protect the identity of each child, names will NOT be used and all students will be assigned a unique identification code. The identity of all children, their individual responses to survey questions, and academic scores will be kept confidential and in a locked office away from the school.

However, if we are concerned about the safety of you child based on his/her responses, we will provide your student's ID number to the principal. Your child's responses to questions may be used in publications or presentations from this study, but they are confidential and published reports from this study will never include identifying information about your child. For the purposes of quality improvement and safety, the Institutional Review Board or Boston University's School of Education may review the data. All data will be stored securely on a password-protected computer and the files will be destroyed upon completion of the study. Once the study is completed, a report will be generated and provided to the principal without any identifying information and the data will be in aggregated form to protect the identity of all individuals.

Your child's participation in this research is voluntary. There is no penalty for students who decide not to participate in this study, and students may withdraw from the study at any time without penalty. Your child will not be paid to participate in this study; but they will be given a

pencil to keep and use when completing the survey. Survey questions will be read aloud and students will be reminded that they can ask questions at any time or stop participating in the survey at any time simply by putting their pencil down. If you do not provide consent or your child does not assent, they will complete classwork provided by their teacher during survey administration.

There are no direct benefits to your child for participating in this study. However, this research might teach us something new that will help children feel positive about school.

This research study is being conducted by Suzanne Vinnes, a doctoral student from Boston University, and can be reached at [svinnes@bu.edu](mailto:svinnes@bu.edu). You may also contact her advisor, Dr. Jennifer Green. If any of the statements or words in this form are unclear, please let us know. If you have any questions about the research or any portion of this form, please ask us.

If you have questions about your rights as the parent/guardian of a research subject or want to speak with someone independent of the research team, you may contact the Boston University IRB directly at 617-358-6115.

### **Statement of Consent**

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to have my child participate in the study.

### **SIGNATURE**

\_\_\_\_\_  
Name of child

\_\_\_\_\_  
Name of Parent/Guardian

\_\_\_\_\_  
Signature of Parent/Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Principal  
Investigator

\_\_\_\_\_  
Date

Appendix G

Parent Consent Form – Addendum

**Boston University** School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



April 4, 2016

Dear Parent or Guardian:

Thank you for returning a consent form allowing your child to participate in our research study examining school climate in inclusive settings and how school climate relates to academic outcomes. We want to update you on few items.

The first is all those who return a consent form will be entered into a raffle to win one of two \$100 gift cards to Amazon.com. Because you returned a consent form already, you will automatically be entered into the raffle. In addition, your child will be given a sticker and an extra pencil.

Second, our earlier document did not fully explain the risks associated with this study. The primary risks involve breach of confidentiality and possible subject matter discomfort. We would like to assure you that your child's participation in this research project is voluntary and that we are taking steps to minimize these risks by protecting the identity of each child and reviewing ways that they can opt out of the survey during administration. Names will NOT be used and all students will be assigned a unique identification code. The identity of all children, their individual responses to survey questions, and academic scores will be kept confidential and in a locked office away from the school. However, if we are concerned about the safety of you child based on his/her responses, we will provide your student's ID number to the principal. Your child's responses to questions may be used in publications or presentations from this study, but they are confidential and published reports from this study will never include identifying information about your child. All data will be stored securely on a password-protected computer and the files will be destroyed upon completion of the study.

Should you have any questions about this study or this addendum, please feel free to contact Suzanne Vinnes, a doctoral student from Boston University ([svinnes@bu.edu](mailto:svinnes@bu.edu)), or her advisor, Dr. Jennifer Green. If you have any questions about your rights as the parent/guardian of a research subject or want to speak with someone independent of the research team, you may contact the Boston University IRB directly at 617- 358-6115.

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Signature of Principal Investigator

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Date

## Appendix H

### Teacher and Administrator Consent

**Boston University** School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



Dear Teacher/Administrator:

You have been invited to take part in a research study. The purpose of this study is to first understand teacher and student perceptions of school climate to determine the extent to which they agree. Second, we will determine to what extent these perceptions are associated with student academic outcomes. In addition, this study will seek to understand what characterizes the school climate at the Monroe by surveying administrators, analyzing school documents, and performing observations.

We are asking you to take part in this study because you are an administrator, or a general or special education teacher at the upper elementary level (Grades 3, 4, & 5) in a school that is known to include students with behavior disorders. Your participation will involve 1) completing a survey asking you to rate elements of school climate, which will include demographic questions; 2) completing a behavior rating questionnaire for each student (teachers only); 3) participating in a 30-minute interview; 4) allowing for silent observations that will take place in your classrooms and around the school and 5) providing any documents that characterizes your school's climate, such as newsletters, procedural handbooks, and notes from professional development activities.

Participants include approximately 100 students, 6 teachers, and 3 administrators from the Monroe Elementary School in Boston, Massachusetts. Boston University's School of Education is sponsoring this study and the researcher has been awarded a grant to offset the costs associated with study design and implementation. We expect that it will take 15–20 minutes for you to complete the survey, 65 minutes to complete the behavior rating scales (teachers only), and 30 minutes to complete the interview. The total amount of time you will spend participating in this research project is expected to be 1.5 to 2 hours for teachers and 1 hour for administrators. The information you provide will contribute to the body of research intended to support the inclusion of students with behavior disorders in general education classrooms.

Your participation in this research is voluntary. You may choose to withdraw from the study at any time. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential. Your responses to questions may be used in publications or presentations from this study, but they are confidential and published reports from this study will never include identifying information about you or your students. For the purposes of quality improvement and safety, the Institutional Review Board or the Boston University School of Education may review the study data. In addition, the researcher will ask for your permission to audiotape the interview so that they can review your responses at a later time. All survey data, completed questionnaires, observational notes, document analysis, and audiotapes will be stored securely on a password-protected computer and will be destroyed upon completion of the study. Your name will be replaced with a code number to keep your identity confidential. There are no costs to you for taking part in this research study. To thank you for your participation, you will receive a \$50 gift card to Barnes and Noble.

The main risks to you are: 1) some of the questions may cause subjective discomfort; 2) you may be concerned that your responses will be identifiable; and 3) being observed by an outsider may cause feelings of discomfort. It is important that you do not write your name on any documents, know you may skip any questions that you do not want to answer, and you may ask the researcher to stop the observation or the interview at any time. In addition, all findings will be communicated with the building principal in aggregated form so that no participant can be identified. We will make every effort to keep your records confidential.

You may or may not benefit from taking part in this study. Possible benefits may include 1) a better understanding of your school's climate, which may help you improve your inclusive practices 2) results from this study may support the design of future professional development activities designed to support the inclusion of students with behavior disorders and further the mission of ensuring that the importance of school climate remains a priority and 3) the information acquired may inform future interventions needed to support students, specifically those with behavior disorders.

If any of the statements or words in this form are unclear, please let us know. If you have any questions about the research or any portion of this form, please ask us. The person in charge of this study is Suzanne Vinnes, a doctoral student from Boston University, and can be reached at [svinnes@bu.edu](mailto:svinnes@bu.edu). You may also contact her research advisor, Dr. Jennifer Green. If you have questions about your rights as a research subject or want to speak with someone independent of the research team, you may contact the Boston University IRB directly at 617-358-6115.

### Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.

Do you agree to participate in the school climate survey and the student behavior questionnaire?

\_\_\_\_\_ YES

\_\_\_\_\_ NO

Do you agree to be interviewed and allow us to audiotape you?

\_\_\_\_\_ YES

NO

\_\_\_\_\_  
Name of Subject

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

## Appendix I

### Interview Protocol: Teachers

**INCLUSION OF STUDENTS WITH BEHAVIOR DISORDERS: THE  
RELATIONSHIP BETWEEN SCHOOL CLIMATE AND  
STUDENT ACADEMIC OUTCOMES**

**INDIVIDUAL SEMI-STRUCTURED INTERVIEWS WITH CLASSROOM  
TEACHERS**

**Winter 2015**

Interviewer: \_\_\_\_\_

Participant ID: \_\_\_\_\_

Date of Interview: \_\_\_\_\_

Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

Interview Length: \_\_\_\_\_ (minutes)

**Principal Investigator: Suzanne Vinnes, M.Ed., Doctoral Student**

**Permission to Record:** You have given your consent for our discussion to be audiotaped so that I can go back and review what we discuss. Is it ok with you for me to turn the recorder on now? [Once the recorder is on, state that it is so that the recording reflects that the participant was aware the conversation is being recorded.]

**Introduction:** We are interested in understanding what characterizes the school climate at the Monroe. School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive climate supports people feeling socially, emotionally, and physically safe. We especially want to learn how you do this when students with behavior disorders are included in your classroom. We have some questions to guide us, but we're interested in whatever comes to mind for you as you think about your own experiences in creating a positive school climate when students with behavior disorders are included. Whatever we discuss is confidential and will not be disclosed to your colleagues or superiors in any way that you could be identified. Please try to avoid using any names of colleagues or children when telling your story.

Topic	General Statement	Possible Probes
<b>About the Monroe Elementary School</b>	I'd like to start with hearing about what it was like for you to begin working at the Monroe.	<ul style="list-style-type: none"> <li>• How many years have you been teaching?</li> <li>• How many years have you been teaching at the Monroe?</li> <li>• Before you began teaching at the Monroe, did you know that students with BD were included in the general education classrooms? Can you talk a little about how you came to know about this school's model?</li> </ul>
<b>School Climate</b>	<p>Do you think that your school has a positive climate and one that supports people feeling socially, emotionally, and physically safe?</p> <p>If so, what strategies do you use to develop a positive school climate?</p> <p>If not, what do you feel are the biggest challenges you face in trying to develop a positive climate?</p>	<ul style="list-style-type: none"> <li>• Do you have a system of welcoming new students into your classroom?</li> <li>• If a student is engaging in challenging behaviors, how do you respond? How were these processes put into place?</li> <li>• Is it challenging to maintain student confidentiality?</li> <li>• In your experience, do you think including students with behavior disorders impacts the school climate? How so?</li> <li>• Have you noticed if children are impacted by the challenging behaviors of their peers?</li> </ul>

<p><b>Professional Development</b></p>	<p>Do you feel prepared to teach in an inclusion school?</p> <p>What types of training have you received to support the development and maintenance of a positive school climate?</p>	<ul style="list-style-type: none"> <li>• How has the school district supported your professional development in working with students with behavior disorders in an inclusive setting?</li> <li>• How has the school supported your professional development in working with students with behavior disorders?</li> <li>• What are your impressions of these training opportunities?</li> <li>• Has this experience changed your teaching practices in any way?</li> </ul>
<p>Is there anything I didn't ask or we did not talk about that you would like to add?</p>		

Thank you for taking the time to talk with us today!

Appendix J

Interview Protocol: Administrators

**INCLUSION OF STUDENTS WITH BEHAVIOR DISORDERS: THE  
RELATIONSHIP BETWEEN SCHOOL CLIMATE AND  
STUDENT ACADEMIC OUTCOMES**

**INDIVIDUAL SEMI-STRUCTURED INTERVIEWS WITH ADMINISTRATORS**

**Winter 2015**

**Interviewer:** \_\_\_\_\_

Participant ID: \_\_\_\_\_

Date of Interview: \_\_\_\_\_

Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

Interview Length: \_\_\_\_\_(minutes)

**Principal Investigator: Suzanne Vinnes, M.Ed., Doctoral Student**

**Permission to Record:** You have given your consent for our discussion to be audiotaped so that I can go back and review what we discuss. Is it ok with you for me to turn the recorder on now? [Once the recorder is on, state that it is so that the recording reflects that the participant was aware the conversation is being recorded.]

**Introduction:** We are interested in understanding what characterizes the school climate at the Monroe. School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive climate supports people feeling socially, emotionally, and physically safe. We especially want to learn how you do this when students with behavior disorders are included in this school. We have some questions to guide us, but we're interested in whatever comes to mind for you as you think about your own experiences in creating a positive school climate when students with behavior disorders are included. Whatever we discuss is confidential and will not be disclosed to your colleagues or superiors in any way that you could be identified. Please try to avoid using any names of colleagues or children when telling your story.

Topic	General Statement	Possible Probes
<b>About the Monroe Elementary School</b>	I'd like to start with hearing about what it was like for you to begin working at the Monroe.	<ul style="list-style-type: none"> <li>• How many years have you been working here?</li> <li>• Before you began working at the Monroe, did you know that students with BD were included in the general education classrooms? Can you talk a little about how you came to know about this school's model or how it has changed since your began working here?</li> </ul>
<b>School Climate</b>	<p>Do you think that your school has a positive climate and one that supports people feeling socially, emotionally, and physically safe?</p> <p>If so, what strategies do you use to develop a positive school climate?</p> <p>If not, what do you feel are the biggest challenges you face in trying to develop a positive climate?</p>	<ul style="list-style-type: none"> <li>• Do you have a system of welcoming new students into your school?</li> <li>• If a student is engaging in challenging behaviors, do you get involved? If so, how do you get involved? How were these processes put into place?</li> <li>• Is it challenging to maintain student confidentiality?</li> <li>• In your experience, do you think including students with behavior disorders impacts the school climate? How so?</li> <li>• Have you noticed if children are impacted by the challenging behaviors of their peers?</li> </ul>

<p><b>Professional Development</b></p>	<p>Do you feel prepared to be a leader in an inclusion school?</p> <p>What types of training have you received to support the development and maintenance of a positive school climate?</p>	<ul style="list-style-type: none"> <li>• How has the school district supported your professional development in working with students with behavior disorders in an inclusive setting?</li> <li>• Who supports your professional development in working with students with behavior disorders?</li> <li>• What are your impressions of these training opportunities?</li> <li>• Has this experience changed your practices in any way?</li> </ul>
<p>Is there anything I didn't ask or we did not talk about that you would like to add?</p>		

**Thank you for taking the time to talk with us today!**

Appendix K

Student Assent

**Boston University** School of Education  
Department of Curriculum & Teaching

Two Silber Way  
Boston, Massachusetts 02215



Dear Student:

We want to tell you about a research study we are doing. Research studies help us to learn new things. People who work on research studies are called researchers. During research studies, the researchers collect a lot of information so that they can learn more about something. We are doing this study because we would like to learn more about how feel in your school. We are asking you to join this study because you are a student in Grade 3, 4, or 5.

There are a few things you should know about this study:

- You get to decide if you want to be in the study
- You can say ‘No’ or ‘Yes’
- Whatever you decide is OK
- If you say ‘Yes’ now, you can change your mind and say ‘No’ later
- No one will be upset if you say ‘No’
- You can ask us questions at any time
- We will also get permission from your parent/guardian for you to take part in this study. You can discuss your participation with your parents.

If you decide to be in this study, we will ask you to fill out a short survey asking questions about how you feel in your school (we will read this along with you). Some of the questions you are asked about your school may be hard to answer. The survey will ask you some questions about school rules and your friendships with other students. Just remember that you can ask questions at any time or stop participating in the survey at any time simply by putting your pencil down.

You will also see us performing some observations in your school and your classrooms. This is so that we can understand better how your school works. We will also be reviewing some of your English Language Arts and Math assessment results. We will make sure all this information stays private.

This research might teach us something new that will help you or other children feel good and successful in school. To thank you for being in this study, we will give each of you, even if you stop participating, a pencil to use when completing the survey. To protect your privacy, you will be assigned a unique ID number so that no one will know what your responses are. We don’t plan to tell anyone or share your name or other information about you if you join this study. However, if we are worried about your safety at school, we will give your ID number to Mr. Baker. With that exception, we will do our best to make sure that no other people could find out your information.

**Contacts**

If you have any questions about this study, you can talk with me, Suzanne Vinnes at any time. I can be reached at [svinnes@bu.edu](mailto:svinnes@bu.edu), or you can tell your teacher that you would like to speak with me and they can get a hold of me.

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**Curriculum Vitae**

