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The Intersection of Mindfulness, Teacher Efficacy and School Climate: A Pilot Study

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The Intersection of Mindfulness, Teacher Efficacy and School Climate: A Pilot Study

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ABSTRACT

Burnout, teaching self-efficacy, and school climate are hot topics in education. Daily stressors create feelings known as burnout, including emotional exhaustion, detachment from teammates, and a decline in feelings of professional competence. The alarmingly high rate of educator turnover illustrates a critical juncture in education. Therefore, interventions are required to improve a teachers' ability to manage student behaviors, provide quality instruction, maintain student engagement, and sustain an atmosphere of collegiality with teammates and administrators.

Mindfulness is a concept that is best understood as moment-to-moment, non-judgmental awareness cultivated through the practice of meditation and calming activities. These interventions are being utilized in schools all over the world to improve student and teacher outcomes. This study identified how mindfulness trainings improve teacher self-efficacy and perceptions of school climate during four weeks of training using a mindfulness curriculum. A convenience sample of public educators from a large urban district in Colorado were participants. The researcher hypothesized that participants will change perceptions of teaching self-efficacy and school climate. Results indicated that mindfulness trainings had a positive impact on educators' sense of efficacy in instructional strategies and school, parent and community relationships.

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TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION 1
Problem Statement 1
Purpose 2
Research Questions 5
Significance Statement 6

CHAPTER TWO: LITERATURE REVIEW 8
Burnout 8
Teacher Self-Efficacy 11
School Climate 15
Mindfulness 20
Mindfulness in Schools 25
Mindfulness for Teachers 31

CHAPTER THREE: METHOD 45
Research Questions 46
Participants 47
Instruments 48
Teachers' Sense of Efficacy Scale, long form. 48
Yale School Climate Survey, school staff version, revised edition. 49
MindUP Curriculum 50
Curriculum adaptation and modification. 51
Procedures 52
Institutional Review Board. 52
Recruitment. 52
Implementation. 54
Analysis 55

CHAPTER FOUR: RESULTS 56
Teachers' Sense of Efficacy Scale, Long Form 57
Efficacy in student engagement. 57
Efficacy in instructional strategies. 58
Efficacy in classroom management 58
Yale School Climate Survey, School Staff Version, Revised Edition 59
Achievement motivation. 59
Collaborative decision-making. 60
Equity and fairness 60
Leadership. 61
Order and discipline. 61
School building. 62
School, parent, community relations. 62
Staff dedication to student learning. 63
Staff expectations. 63

CHAPTER FIVE: DISCUSSION **65**
Limitations 69
Implications and Future Directions 71
Educator preparation programs. 71
School psychology research. 71
School psychology practice. 73
Conclusion 74

REFERENCES **76**

TABLES **85**
Table 1: *Pre-Post ANOVA of the Teacher's Sense of Efficacy Scale--Long Form* 85
Table 2: *Pre-Post ANOVA of the Yale School Climate Survey, School Staff Version, Revised Edition.* 86

APPENDICES **87**
Appendix A: Recruitment Email to Denver Public Schools Administrators 87
Appendix B: Recruitment Flyer 89
Appendix C: Consent Form 91
Appendix D: Denver Public Schools Executive Summary 94
Appendix E: Denver Public Schools Time Requirement Form 96
Appendix F: Denver Public Schools Principal Consent Form 97
Appendix G: Teacher's Sense of Efficacy Scale, Long Form 98
Appendix H: Yale School Climate Survey, School Staff Version (Revised Ed.) 99
Appendix I: Training Cycles Information 102
Appendix J: Training Session Outlines 103

CHAPTER ONE: INTRODUCTION

Problem Statement

Teacher self-efficacy, school climate, burnout, and mindfulness are all hot topics in the fields of education and school psychology. Teachers have daily professional stressors such as large classes, lack of curriculum material, limited planning time, impactful high stakes testing, students with behavioral concerns, and the looming threat of annual evaluations, each of which significantly impacts how they see themselves in the classroom and as part of the school community (Flook, Goldberg, Pinger, Bonus, & Davidson, 2013). These stressors impact not only an educators' teaching self-efficacy, but also the negative experiences can strongly affect the climate of a school building, leading to occupational burnout (Flook et al., 2013). Occupational burnout syndrome involves three interrelated factors including emotional exhaustion, depersonalization, and the lack of feeling accomplishment in one's work (Maslach, 2002). High levels on these factors can combine to weaken teacher physical and mental well-being, impacting school and district level costs related to absenteeism, illness, and desistance from the profession (Roeser, et al., 2013). Current statistics demonstrate that approximately 500,000 (15%) U.S. teachers leave the profession each year, costing about $2 billion dollars annually (Haynes, 2014). Reasons given for leaving the field include low salaries and lack of support. Unfortunately, students in high poverty schools are the most affected individuals because teachers in these schools experience burnout the most quickly (Seidel, 2014).

Therefore, critical and immediate action needs to be taken to understand and improve the well-being of teachers and school-based professionals on both an individual level as well as within their educational community. Mindfulness practices have emerged as a way to positively combat these daily stressors by promoting habits of mind which improve an individual's physical and mental health, help create and sustain supportive relationships with students, and cultivate a school climate conducive to collaboration and teamwork (Roeser, Skinner, Beers, & Jennings, 2012). Given that these adults provide integral academic and behavioral instruction to students and carry the responsibility to create a literate and high functioning society, it is important to have school staff that can regulate their emotions appropriately, problem-solve quickly, think flexibly, and maintain attention throughout the school year. This study will contribute to the body of literature in school psychology by providing pro-social, applicable, and simple strategies to manage the daily stressors brought about by being a public educator.

Purpose

The goal of this study was to explore the impact of mindfulness trainings on school-based staffs' perceptions of burnout by assessing attitudes related to teaching self-efficacy and school climate. Using quantitative approaches, these changes were evaluated over four weeks of professional development using an adapted version of the MindUP curriculum (The Hawn Foundation, 2011). The researcher hypothesized that these trainings would have a direct impact on school-based professionals by allowing each individual to become more rational in thinking, more flexible in managing, and more attentive in teaching, thus creating a successful classroom environment and school community.

The definition of mindfulness can be traced to Kabat-Zinn who defined it as "moment-to-moment, non-judgmental awareness; it is cultivated attention that occurs on purpose and in the present moment. It is a way of being that requires practice in order to foster positive developmental processes and relieve suffering"(Gazella, 2005, p. 60). Additionally, Langer identifies mindfulness "as an active and effortful mode of conscious awareness characterized by a heightened state of involvement and wakefulness in which one attends to the present moment and to the processes that unfold" (Hart, Ivtzvan, & Hart, 2013, p. 454). These two theorists and their complementary, theoretical perspectives are discussed in more detailed in the next chapter.

One way to evaluate the impact of mindfulness trainings on educators is to assess their teaching efficacy. While teaching efficacy can be defined in many ways, most definitions rely heavily on Bandura's (1977) social learning theory. He postulates that an individuals' self-efficacy is

> the belief in one's abilities to accomplish desired outcomes with expectations from four principal sources: performance accomplishments, vicarious experience, verbal persuasion and physiological states; it is context- and task-specific (Bandura, 1977, p. 191).

When relating these ideas to teachers in particular, efficacy can be linked to external factors such as student outcomes wherein a teacher has a perceived capability to convey academic information and influence student behavior in order to have a positive effect on student learning (Guskey & Passaro, 1994). Moreover, teacher self-efficacy can be related to internal factors such as investment in professional goal-setting, persistence and cognitive resilience in the face of setbacks (Tschannen-Moran & McMaster, 2009). For the purposes of this study, Tschannen-Moran and Hoy's (2001) definition of teacher-self-

efficacy was used which include the constructs of Efficacy in Student Engagement; Efficacy in Instructional Strategies; and Efficacy in Classroom Management. More information regarding the development of these constructs and its measurement instrument is provided in the next chapter.

While teaching efficacy evaluates the perceptions of an individual as they relate to him or herself, the assessment of school climate provides an expansion such that teachers operate within the broader community of a school building. The definition of school climate and culture are concepts that while difficult to define, have been studied in depth since the 1980s. Some researchers posit that they are the same construct, while others argue for a nested model. For instance, Van Houtte and Van Maele (2011) concluded that school culture could be subsumed under the idea of school climate. Alternatively, Schoen and Teddlie (2008) argue that school climate is a subset of school culture, with a model consisting of four main dimensions including Professional Orientation, Organizational Structure, Quality of the Learning Environment, and a Student-Centered Focus. The National School Climate Center (no date) defined school climate as the

> totality of students', parents', and staff's perceptions of the school experience, incorporating interpersonal relationships in and outside of school, teaching and learning methods, organizational structures, and also the community's goals, norms and values in which the school is embedded (School Climate Section, paras. 3-6).

Similar to teacher self-efficacy, school climate and culture also has many levels and is context specific, often aligning with Bronfenbrenner's (1977) ecological model of human development. For the purposes of this study, the term "school climate" was used as the defining construct using the definition from the National School Climate Center discussed above.

The researcher hypothesized that mindfulness trainings would alter school employee's perceptions about themselves as public educators by demonstrating changes in their self-efficacy ratings. That is, they would be equipped to manage daily stressors with individual modifications related to student engagement, instructional strategies and classroom management skills. Moreover, the researcher hypothesized that participants would have an altered view of school climate in terms of their relationships with students, parents, teammates and administrators; perceptions about order, discipline, equity and fairness; opinions related to the physical environment of the school building; and attitudes towards leadership and collaborative decision making. The following research questions guided the study and provided some meaningful outcomes.

Research Questions

1. Is there a significant difference for educators from pre-assessment to post-assessment on the Teachers Sense of Self-Efficacy Scale, Long Form…
    a. Efficacy in Instructional Strategies?
    b. Efficacy in Classroom Management?
    c. Efficacy in Student Engagement?
2. Is there a significant difference for educators from pre-assessment to post-assessment on the Yale School Climate Survey, School Staff Version, revised edition…
    a. Order and Discipline Scale?
    b. Leadership Scale?
    c. School/Parent Community Relations Scale?
    d. Staff Expectations Scale?
    e. School Building Scale?

f. Equity and Fairness Scale?

g. Staff Dedication to Student Learning Scale?

h. Collaborative Decision Making Scale?

i. Achievement Motivation scale?

Significance Statement

The significance of this study can be conceptualized along several domains. First, the mindfulness trainings helped identify school staff members' perceptions of themselves and how conscious awareness activities lead to a decrease in daily professional stressors, particularly as they related to themselves as instructors. Second, these trainings helped identify collective school concerns and how positive changes can be implemented to create a more cohesive school climate, starting with building relationships with parents and community stakeholders. Mindfulness instruction also provides behavioral and social-emotional skills for adults, creating a transfer of knowledge to students.

Therefore, because the researcher was able to identify the positive impact of the mindfulness trainings on certain aspects teaching self-efficacy and perceptions of school climate in a controlled environment, results could extend to supporting educators in many ways. For example, mindfulness strategies and stress reduction techniques can be taught in educator preparation programs and to redefine training models for individuals studying to be educators. In addition, mindfulness trainings can be utilized at various levels within a school system such as at new educator induction networks, in professional development classes and learning communities, through co-planning and co-teaching classes with general educators, as well as via in services with parents and small groups with students,

to help prevent and/or decrease feelings of burnout, keeping individuals in the field for a much longer period of time.

CHAPTER TWO: LITERATURE REVIEW

Given that teachers experience a number of internal and external stressors that can heavily impact their overall job performance, it is important that the intersection of professional burnout, teaching self-efficacy, and perceptions of school climate be explored in greater detail to help educators be more productive members of the classroom and the school. First, theoretical orientations of burnout are discussed. Next, burnout's relationships with both teaching self-efficacy as well as school climate are examined. Finally, a review of mindfulness strategies and how they can improve perceptions of teaching self-efficacy and school climate are reviewed.

Burnout

Job burnout is often considered a "prolonged response to chronic interpersonal stressors on the job, most often experienced by individuals in helping professions" (Maslach, 2002, p. 68). Although research originally began with physicians and nurses, it quickly extended to other fields, education being the most dominant. Maslach's (2002) multidimensional theory of burnout stems from her ideas about how individuals understand their own feelings, use coping strategies when those feelings become intense, as well as the dehumanizing effect that ineffective coping strategies have over time.

Using exploratory interviews, on-site field observations, and a series of questionnaires, her multidimensional theory was developed and defined as "an individual stress experience embedded in a context of complex social relationships that involves the

person's conception of both self and others" (Maslach, 2002, p. 69). This theory includes three interwoven constructs: "(1) emotional exhaustion, (2) depersonalization, and (3) reduced personal accomplishment. Emotional exhaustion includes the feelings of extreme emotional strain and depletion of one's emotional resources" (Maslach, 2002). Sources that impact emotional exhaustion include work overload and personal conflict, combined with feelings of being drained and having no energy. While this area represents the basic individual stress dimension, depersonalization characterizes an interpersonal dimension of burnout. Here a cycle of negative and/or extremely detached responses leads to a loss of idealism and cynical response towards others. However, this feeling is self-protective such that it numbs an individual and shields intrusion of stressors (Maslach, 2002). Finally, the self-evaluative domain of burnout is related to a decline in feelings of professional competence and productivity, often exacerbated by lack of social support and specialized training opportunities (Maslach, 2002). These three concepts are multidimensional and fluctuate within a person who can simultaneously feel a sense of deep compassion and emotional distance, while also protecting oneself from overwhelming emotional feelings such that he or she responds to others more as objects than as persons (Maslach, 2002).

Friedman and Kass (2002) have similar concepts as they argue that a teacher's world encompasses both the classroom and the school, with defining tasks and expressive elements in each domain. Their Classroom and School Context (CSC) Model of Teacher Self-Efficacy includes the following three premises: (1) the teacher has dual roles in that he or she is a leader in the classroom and an employee of the school building; (2) the teacher functions both at a task level and a relation level; and (3) the classroom is a social

system that connects the teacher to the students whereas the other social system connects the teacher to colleagues and the principal (Friedman & Kass, 2002).

After confirmatory factor analysis, the multilevel theory was supported in that the school context and classroom context each contain specific tasks and relations. For instance, the school context's tasks include the influencing and attainment of school goals, while the school context's relations include controlling relationships with colleagues and administrators. Alternatively, the classroom context's tasks include attaining teaching goals whereas the relations include controlling relationships with students and parents (Friedman & Kass, 2002). These three facets, multiple contexts and relations demonstrate how the teacher serves dual, nested roles as he or she is the leader of the classroom, but also a member of the school building and larger community. Given the multiple, stressful influences in each of these environments, it is easy to see how burnout can occur quickly.

Blazer (2010) categorized the factors of burnout along multiple continuums including psychological, physical and behavioral symptoms. Feelings and actions such as helplessness, difficulty finding meaning in the job, high blood pressure, insomnia, headaches, tardiness/absenteeism, rote task performance, and a low tolerance for classroom disruptions can combine to make educators leave the field almost as quickly as they entered it. She identified several environmental stressors that can increase the feelings of burnout such as poor working conditions; excessive job demands; increased accountability pressure; lack of empowerment and autonomy; lack of training; lack of recognition and feedback; lack of parental, community, collegial and/or administrative support; substandard pay; and disruptive behaviors in the classroom (Blazer, 2010).

Individual factors that impact feelings of burnout include age; gender; friend and family support; experience; and personality traits such as self-efficacy, self-esteem, internal locus of control, and positive self-concept (Blazer, 2010). She recommends specific activities that individuals, schools, and districts can engage in to decrease burnout and increase positive feelings towards the profession. These activities include paying attention to early warning signals, stress management, time management, professional development, peer support networks, feedback and recognition, adequate resources, and supportive leadership (Blazer, 2010).

The concept of burnout is multidimensional and consists of individual factors as well as contextual factors that significantly impact an educator's ability to function during a school year. Emotional exhaustion, detached responses to teammates, loss of idealism, and lack of professional development are all feelings and behaviors that occur not only within oneself, but between colleagues as well. These characteristics create an environment conducive to chronic stress, mental exhaustion, and eventual exodus from the field. Therefore, it is important to know what individual factors will improve an educators' ability to be effective in his or her classroom. One of best predictors of job satisfaction that mediates the role of burnout is self-efficacy, described in the next section.

Teacher Self-Efficacy

Efficacy in one's teaching ability is one of the most predictive factors for educators to remain or leave the field of education. Self-efficacy is considered "a belief in one's abilities to accomplish desired outcomes which is context- and task-specific" (Bandura, 1977, p. 191). Skaalvik and Skaalvik (2010) theorized that teacher self-

efficacy is a belief in one's capacity to plan, organize, and carry out activities, which are required to attain educational goals. Cherniss (as cited in Brown, 2012) suggested that teacher self-efficacy consists of multiple domains including task, interpersonal, and organizational levels. While the task level includes teachers' skills in academic instruction, discipline and motivation of students, the interpersonal level relates to an ability to work harmoniously with others, including colleagues and administrators. Finally, the organization level includes a teacher's ability to influence the social and political powers in the district. Maslach's (2002) multidimensional theory of burnout, Friedman and Kass' (2002) CSC models, and Blazer's (2010) behavioral continuums, identify that the concept of teaching self-efficacy is not only context specific, but hierarchical at the individual, classroom, school building, and district levels. The larger school climate issues and how it relates to burnout and teacher-self-efficacy will be discussed in next section.

One can observe the inverse relationship between teacher self-efficacy and feelings of burnout; if teachers can cope successfully with stress, such as through social and emotional support from colleagues, co-operating with parents, or changing their teaching strategies, they are less likely to feel burnout symptoms. Alternatively, if teachers develop psychological symptoms from various daily stressors, such as disciplinary problems and district evaluations, signs of burnout may be evident earlier and come on more quickly (Skaalvik & Skaalvik, 2010).

Yu, Wang, Zhai, Dai, and Yang (2015) suggest that self-efficacy plays a mediating role in the effect of work stress and job burnout among teachers. They evaluated 387 teachers from two middle schools, using a variety of assessments that

measured perceived stress, self-efficacy, and burnout. Stress ratings correlated positively with job burnout and negatively with self-efficacy. Additionally, teachers' perceptions of pressure at work was positively correlated with lower self-efficacy ratings, increased rates of feeling more burnt out, and being more tired of working (Yu, Wang, Zhai, Dai & Yang, 2015).

Additionally, Savas, Bozgeyik, and Esner (2014) examined the relationship between teacher self-efficacy and burnout. They randomly selected 163 teachers working in primary and secondary schools in Turkey during the 2014 – 2015 school year. Their findings suggest that teaching self-efficacy and feelings of burnout are significantly inversely related. Savas et al. (2014) concluded that increasing teaching self-efficacy is necessary and crucial to make schools more effective. These results can be influenced by multiple factors including positive experiences when an individual is new to the field, observations of colleagues engaging in similar teaching practices, and providing positive feedback and criticism that is constructive (Savas et al., 2014).

Tschannen-Moran and McMaster (2009) evaluated teacher's self-efficacy as related to Bandura's (1979) four domains in a quasi-experimental study of primary and resource teachers across nine schools in five districts. They used four different professional development formats with increasing levels of efficacy-relevant input to assess how the teachers' self-efficacy beliefs changed before and after the informational sessions. Tschannen-Moran and McMaster (2009) found the format that supported mastery experiences through follow-up coaching had the strongest effect on self-efficacy beliefs, similar to what Bandura (1977) discussed in his original paper. That is, professional, collegial relationships developed early on with positive feedback and

constructive criticism allowed for the most growth over time since the individual became more masterful on a stable and calibrated basis. However, some teachers also demonstrated a drop in their self-efficacy ratings as the learning of a new skill caused some of them to reassess their definition of teaching and recalibrated their own beliefs against the new standard (Tschannen-Moran & McMaster, 2009).

For the purposes of this study, Tschannen-Moran and Hoy's (2001) model of teacher self-efficacy will be used which includes Efficacy in Student Engagement; Efficacy in Instructional Strategies; and Efficacy in Classroom Management. These constructs and their relationship to each other were developed and formatted into a cohesive model by the researchers after an extensive literature review evaluated the measures and ideas *a priori* (Tschannen-Moran & Hoy, 2001).

Therefore, self-efficacy plays a vital role in mediating how an educator manages the various stressful aspects of his or her job. While many of the aforementioned studies focus on teacher-student relationships and academic outcomes as they relate to perceptions of self-efficacy, there is a need to delve deeper into how mindfulness practices can impact an educator's perception of themselves as effective classroom managers and instructional strategists. In addition, it is important to remember that an educator exists in a multi-layered network of relationships and does not experience stressors in isolation. Instead, school employees are interconnected with many individuals in the community that range in age (students) and purpose (administrators, parents, community members) who can impact their perceptions of the larger school climate as it relates to teaching and learning practices; physical and mental safety; and order and

discipline policies. Therefore, the concept of school climate is also integral in understanding how an educator perceives and manages these contextual stressors.

School Climate

School climate has been a hot topic in the field of education since the 1980s. There are many definitions offered, with some researchers identifying that school climate and culture are the same construct and can be used synonymously. Certain researchers have argued for nested models in which school culture is a subset of school climate (Van Houtte & Van Maele, 2011) and other researchers claim school climate is a subset of school culture (Schoen & Teddlie, 2008). While there is not a current model that is used more frequently than others, the National School Climate Center and the National School Climate Council (n.d.) have identified four areas in which school climate can be defined: safety; relationships between students, teachers, and parents; teaching and learning; and the school environment. They state that school climate refers to the

> quality and character of school life that is based on patterns of students', parents' and school personnel's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (How do we define School Climate, para. 3).

For the purposes of this study, the term school climate will be utilized.

There is a plethora of research related to student perceptions and aspects of school climate, such as emotional well-being, behavioral safety, and the physical school environment. The majority of this research identifies that

> school climate has a profound impact on students' mental and physical health, particularly related to self-esteem, self-concept, attendance, motivation to learn, and decreased substance abuse and psychiatric problems (Cohen, Guffey, & Higgins-D'Alessandro, 2013, pp. 3 - 4).

Studies are related to student perceptions of school climate for protective factors and their influential characteristics as well as possible risk factors and their potential negative effects.

Hopson, Schiller, and Lawson (2014) were curious about how school climate and safety relate to behavior and grades for middle school students. Over 13,000 students completed a survey, which evaluated risk and protective factors in their neighborhoods, schools, peer groups, and families. Multilevel modeling indicated that students with higher perceptions of supportive schools and neighborhoods also reported better grades and behavior (Hopson et al., 2014). Alternatively, students reported having lower grades and worse behavior if they perceived their school as less safe and supportive (Hopson et al., 2014).

Johnson et al. (2016) conducted observations of the physical and social environment of 58 high schools to evaluate how they relate to students' perceptions of school climate and involvement in violence. Additionally, they analyzed data from over 28,000 adolescents to assess their perceptions of school climate. They addressed two questions associating school environment and school behavior, as well as how disorganization operates in a school setting. They hypothesized that a disordered school environment would have increased violence due to decreased positive perceptions of school climate, and explored the direct effect disorganization at the school level as it related to increased school violence (Johnson et al., 2016). Structured observations were conducted over the course of three days, with two observers at each school. During these observations, high school students completed a school climate survey online. Results from multilevel modeling indicated support for an indirect effect of the observed

environment on school climate perceptions of disorder, rules and consequences, and negative student behaviors (Johnson et al., 2016). Therefore, changes to the school environment may result in reduced involvement in violence as well as more positive perceptions of order, expectations, and student behaviors.

Zullig, Huebner, and Patton (2011) assessed the magnitude of the relationship of eight school climate factors and overall school satisfaction among middle and high school students. Over 2,000 students from a Midwestern state completed a questionnaire at school in Spring, 2008. Correlation and multiple regression analyses identified multiple factors that had significant relationships with School Satisfaction such as Academic Support, Positive Student-Teacher Relationships, School Connectedness, Order and Discipline, and Academic Satisfaction (Zullig, Huebner, & Patton, 2011). In contrast, Perceived Exclusion/Privilege accounted for less of the variance when compared to the other variables. These results indicate that positive psychological practices should be instituted in schools to help students feel more emotionally safe and healthy.

Conderman, Walker, Neto, and Kackar-Cam (2013) conducted a mixed methods study assessing student and teacher perceptions of climate in a middle school in the Midwestern United States. The school had 1,200 students enrolled with teachers having an average of 18 years teaching experience. The researchers completed observations, focus groups, structured interviews, and a survey to better understand how teachers and students perceive their experiences in middle school as well as the areas of conflict in perceptions between students and teachers (Conderman, Walker, Neto, & Kackar-Cam, 2013). Observations were conducted twice per week for one semester with 100 teachers and 41 students. The primary purpose was to obtain field notes related to faculty

meetings and teacher-student interactions. Focus groups were conducted only with students by randomly selecting them from each grade, controlling for gender and ethnicity. Topics included interactions with teachers; interactions with peers; buildings, grounds, and facilities; opportunities for extracurricular activities; administration/discipline; and parental involvement (Conderman et al., 2013). Finally, the students and teachers that were observed took an 82-item survey modified by the researchers. Observations noted three central themes including (1) teachers are kind and courteous, but provide too much supervision; (2) teachers incorporate technology into their instruction, but students don't find it to be necessary for their learning; and (3) parents were not necessarily engaged in school activities (Conderman et al., 2013). Survey data indicated that teachers had a more positive perception of the quality of education than did students, who instead revealed their feelings through comments made in focus groups (Conderman et al., 2013). Authors noted that this study provided support for the significance of contextual factors such as academics, extracurricular activities, and social interactions when understanding middle school teachers' and students' perceptions of school climate.

Mitchell, Bradshaw, and Leaf (2010) evaluated the perceptions of overall school climate and academic emphasis using parallel analysis between 1,881 fifth grade students and their 90 homeroom teachers. The researchers gathered data related to demographics, perceptions of classroom management and disruptive behaviors for teachers, and perceptions of school climate from students. Analyses were conducted using multilevel modeling techniques; the researchers found that

> classroom level factors such as management and disruptive behaviors were more closely associated with teacher perceptions of climate, whereas student perceptions were more closely related to school-level factors such as student mobility, student-teacher relationship, and principal turnover (Mitchell, Bradshaw, & Leaf, 2010, p. 271).

Abenavoli, Harris, Katz, Jennings, and Greenberg (2014) examined the impact of mindfulness on educators' efficacy in the classroom throughout the school year. The faculty of two middle schools was recruited to participate in a yoga-based professional development program over the course of a school year. Data were collected at three time periods, which included before, during, and after the intervention via an online survey, an in-person physical assessment, and a salivary sample. The surveys assessed teaching self-efficacy and perceptions of mindfulness, with possible mediators including affect and burnout (Abenavoli et al., 2014). Preliminary analyses indicated that mindfulness was predictive of efficacy from the beginning to the end of the year, particularly for student engagement.

These studies demonstrate the impact that both physical environment and emotional safety can have on students' perception of school climate. In addition, the aforementioned results highlight the importance of instituting positive psychological interventions to help increase feelings of connectedness for students. Unfortunately, there is much less information available related to teacher perception of school climate. Educators play a primary role in making students feel safe physically and emotionally at school. Generally, teachers display the qualities of empathy, compassion, nurturance, and high expectations, which help students feel comfortable in order to make both academic and social gains. However, if one thinks back to the daily stressors that impact teaching, it can be difficult for teachers to demonstrate those characteristics daily and over the

course of many school years. Therefore, it is vital that teachers are provided strategies to decrease the stress and increase awareness in how to better manage these pressures. One way to manage these concerns is through professional development in mindfulness practices that center on flexible thinking and being present in order to keep professionals in the field for lengthier periods of time and with more positive dispositions towards job expectations.

Mindfulness

Kabat-Zinn and Langer are the two scholars who repeatedly appear in the literature for bringing mindfulness to the forefront of alternative therapies, particularly in the areas of stress reduction and relaxation with various types of individuals. While some of their theoretical components overlap, particularly regarding the core mechanisms of self-regulation of attention, there are some key differences as well that will be thoroughly outlined below. These two theorists' ideas provide the theoretical basis for the current research study. If teachers are feeling burnt out from their jobs, then it is important to find ways to improve their perceptions of self-efficacy and school climate in order to remain in the profession for longer than five years. The researcher proposed to do this through mindfulness theory and interventions.

In the 1970s, Kabat-Zinn began using mindfulness at the University of Massachusetts Medical Center in order to alleviate a variety of mental and physical conditions in his patients (Gazella, 2005). He is often considered the founder of mindfulness-based stress reduction (MBSR), which has linked ideas from ancient teachings of Buddhism with medicine and alternative therapies. He believes that

mindfulness joins the art of science and medicine in order to fully recognize that human – to – human interactions are all intimate communications (Gazella, 2005).

His theoretical components include metacognitive processes that therapeutically aim to lessen and/or alleviate physical illness symptoms and psychological distress in a clinical setting (Hart et. al, 2013). This accommodative stance requires that individuals should attempt to notice whatever predominates their awareness – internal or external stimuli – as they occur in the moment. This awareness aims to cultivate an attitude defined by the following seven qualities:

(a) Nonjudging – neutral observation of the present, moment by moment;

(b) Nonstriving – not forcing things and not aiming to achieve an end;

(c) Acceptance – recognizing and embrace things as they are;

(d) Patience – letting things progress in their time and pace;

(e) Trust – having confidence in oneself and in the process unfolding in life;

(f) Letting go – not holding on to thoughts, feelings or experiences;

(g) Gentleness – a soft, considerate, and tender outlook, even when they are taxing (Hart et al., 2013, p. 459).

Individuals are also encouraged to remain motionless in order to accept the continual feelings of disturbing thoughts or emotions without escaping or avoiding them, thus becoming less judgmental and more in the moment. In this way, individuals can lessen the emotional reactivity prompted by thoughts, and eventually become skilled at being less reactive and able to better discern and moderate habitual maladaptive thinking and behavioral responses (Hart et al., 2013). If individuals are able to fully engage in and practice these daily meditations, they will be more apt to self-regulate their attention;

alleviate biological and psychological symptoms; and increase their disposition of mindfulness.

Langer also began her work in the 1970s with a conceptualization of mindfulness as an active and effortful method of being consciously aware, using an enhanced state of wakefulness by attending to the present moment and to developing processes (Hart et al., 2013). While Kabat-Zinn's purpose is to increase a mindful disposition, Langer's approach to mindfulness holds its purpose in having cognitive and behavioral control in order to be more flexible, less reactive, and more engaged with a particular environment (Hart et al., 2013). She targets healthy people in every day settings with brief interventions that are short lived and don't required continual, daily practice (Hart et al., 2013).

While these two individuals dominate the literature, there are other professionals that have complementary ideas and philosophies that can be related to how individuals manage stress, maintain flexibility, and self-regulate attention. For example, Shonin (2016) describes mindfulness as coming from Buddhism and the Zen tradition in that deep questions and their responses are not always available in our conscious awareness, pointing to the judgmental mindset of human beings. However, Jones (2011) argues that mindfulness should be considered an everyday skill, best understood through simple meditation-style exercises that not only increase cognitive awareness, but also provide better ways to respond to situations and make a person less likely to engage in risky or unsafe behaviors.

Williams (2007) identifies mindfulness practices as active, developmental, and educational as well as intentional, experiential, and nonjudgmental. He identifies

intentionality as creating an awareness of being in the present moment whereas the experiential aspect indicates a focus directly on the current situation and not being pre-occupied with other issues. Finally, being non-judgmental permits an individual to see things just as they are without creating critical labels for that experience or situation. These concepts are distinctly related to Kabat-Zinn's seven qualities discussed earlier and provide a consolidated and updated mindfulness framework.

Davis (2012) offers that mindfulness can be interpreted in many ways, including as a method, a perspective, a subjective experience, and a cognitive process. For instance, mindfulness as a *method* can be considered a way of doing something such that an individual practices and repeats a specific activity, re-directing attention towards that experience either through meditation or everyday activities (Davis, 2012). These activities can be as simple as getting dinner ready or managing oneself in in the daily tasks of a job, or as difficult as focusing attention so deliberately that it requires an individual to block out all other stimuli. In this way, one focuses his or her attention on the desired object or activity, which not only improves over time, but also decreasing the potential distractions (Davis, 2012). One can map this idea for an educator such that he or she will become better focused on the teaching of a current lesson and try to block out the intrusive thoughts of the next subject, an upcoming assembly, a parent meeting, or an administrator's evaluation.

Mindfulness as a *perspective* is a way of thinking so that an individual will observe internal thoughts and feelings as an entity in and of itself, as opposed to the actions themselves (Davis, 2012). A defused perspective of mindfulness may be obvious when a teacher describes his or her experience of anxiety as being in the conscious

awareness. Alternatively, a 'fused' perspective is evident when a teacher would describe his or her experience as a feeling such as "I am anxious" (Davis, 2012). Additionally, mindfulness encourages the individual to pay attention to the physical experience of a situation, as opposed to contemplating the dynamics surrounding the feeling so as to not attribute the feelings as negative and engaging in judgment (Davis, 2012).

The *subjective experience* of mindfulness can be considered as a sense of awareness in that an individual has a sensation of increased consciousness and mental vitality. However, these experiences are not necessarily related to specific feelings, but more about an overall adjustment in cognitions and perceptions about situations (Davis, 2012).

Finally, mindfulness as a *cognitive process* includes observations and sensitivities of an individual who knows what experience is happening, as it is happening which directly relates back to Kabat-Zinn's original definition of being aware, non-judgmental, and in the present moment (Davis, 2012). Additionally, Carson and Langer (2006) identify mindfulness as being cognitively flexible by engaging in perspective taking based on particular contexts. This cognitive process requires practice and guidance, as it can be difficult to do on one's own.

While there are varied definitions of mindfulness, each of them are rooted in being consciously aware of situation, not attaching judgments to it and remaining in the present moment. These concepts are important when attempting to manage the internal and external stressors that educators experience throughout a school day or a school year.

Mindfulness in Schools

Social and emotional learning (SEL) competencies enhance an individual's capacity to integrate skills, attitudes and behaviors to deal effectively and ethically with daily tasks and challenges. The five core competencies of SEL are self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Collaborative for Academic, Social and Emotional Learning [CASEL], 2016). Some of the skills evaluated from the five competencies include identifying emotions, recognizing strengths, self-discipline, organizational skills, perspective taking, empathy, relationship building, responsible decision making, and ethical duties (CASEL, 2016). Mindfulness programs provide training and activities in one or more SEL domains in order to further develop these skills for children and adolescents. Mindfulness training for students is a rapidly changing movement and several studies have demonstrated overall positive results in improving the aforementioned skills.

Davis (2012) summarized several research articles that indicated that mindfulness based approaches improve executive functions, such as behavioral regulation and meta-cognition, in students between the ages of seven and nine. Important factors when using these strategies with students include using concrete and understandable language, repetition of difficult concepts, decreasing use of metaphors, and presenting information in more physically tangible ways (Davis, 2012). Additionally, Scholberlein and Sheth (2009) discuss a wide range of benefits of mindfulness for students, such as increased ability to learn new concepts, improving attention and concentration, and decreasing anxiety and other negative feelings.

Costello and Lawler (2014) conducted an exploratory study on the effects of mindfulness on perceived levels of stress among school children from lower socio-economic backgrounds. They evaluated 63 6th-grade students (17 boys and 46 girls) in Dublin, Ireland along with four teachers who participated. The Perceived Stress Scale was used to evaluate children's perception of stress over the past month, immediately prior to and following the intervention. Additionally, qualitative interviews were conducted with two of the teachers and 16 children (Costella & Lawler, 2014). The primary goal of this study was to equip children with the means of responding to stress using components of two existing mindfulness programs for children, Mindfulness-based Cognitive Therapy for Children and the Mindfulness-based Stress Reduction Course for Children over the course of five weeks. Before the intervention began, teachers were provided with scripts as well as audio recordings and other materials necessary for the lesson. Information from semi-structured interviews were audio-recorded and transcribed with an assessment of codes and themes. Five final themes were identified, each with subthemes, as follows (subthemes in parentheses): (1) Conceptualization of Stress (definition of stress and causes of stress); (2) Awareness (present moment awareness and calmness, concentration and stress reduction); (3) Self-Regulation (regulation of thoughts and feelings, rumination and mind-wandering, and emotional reactivity); (4) Classroom Relations (regulation of classroom behaviors and mindfulness fun); and (5) Addressing Future Stress (transition to secondary school and home-related stress) (Costello & Lawler, 2014). The researchers concluded that, based on the mindfulness interventions, the children were able to deal with stress more effectively, having more adaptive

outcomes at a personal level as well as broadly in their classroom, school, and communities.

Black and Fernando (2014) also assessed mindfulness training with low income and ethnic minority school children. They were interested in evaluating not only the impact of these mindfulness techniques, but also if a certain number of extra sessions were even more beneficial to student outcomes. Their study was conducted in Spring 2011 at a public elementary school in Richmond, CA. The data were collected using the Student Behavior Rubric with 409 students in Kindergarten through 6th grade from 17 teachers in 17 different classrooms at pre-intervention, immediate post-intervention and seven weeks post-intervention (Black & Fernando, 2014). Each of the classrooms were randomly assigned to receive the Mindful Schools (MS) or Mindful Schools+ (MS+) curriculum that was delivered to students in 15-minute sessions, three times per week for five weeks. The classrooms participating in the MS+ condition had an additional class once per week for an extra two weeks (Black & Fernando, 2014). Results indicated that mindfulness interventions improved students' scores on behavioral questionnaires related to sustaining attention, self-control, participation in activities and demonstrating respect for others up to seven weeks after the intervention (Black & Fernando, 2014).

Biegel and Warren Brown (no date) evaluated the Mindful Schools program and its relationship to student achievement, attentional capacities and engagement, as well as teacher self-efficacy in 79 2nd and 3rd graders. Children and teachers completed a battery of evaluations to assess the aforementioned domains. Results from the attention and social skills assessments demonstrated statistically significant results for executive control scores from pre-program to post-program. Additionally, statistically significant

results were found for social skills overall, particularly over the course of the intervention and sustained at three-month follow-up (Biegel & Warren Brown, no date). Changes in assertiveness ratings were statistically significant from pre-program to immediate post-program; internalizing problem behaviors were statistically significant from immediate post-program to three-month follow-up; and academic competence was significantly improved from immediate post-program to three-month follow-up (Biegel & Warren Brown, no date). Lack of a control school, short follow-up time period, and small number of students were considered limitations to the study (Biegel & Warren Brown, no date).

Adolescent boys are a unique group of individuals with whom mindfulness training was completed in a classroom setting in order to evaluate mindfulness, resilience, and psychological well-being (Huppert & Johnson, 2010). A total of 173 young men were recruited from 11 religious education classes at two independent schools. They were predominantly White British boys with only 5% of the students accounting for ethnic minorities. The training consisted of four 40-minute classes, once per week with the principles of mindfulness meditation presented based on the work developed by Kabat-Zinn (Huppert & Johnson, 2010). Multiple measures were utilized to assess mindfulness, resilience, well-being, and personality. A teacher with extensive training taught six of the classes whereas the other five classes acted as controls (Huppert & Johnson, 2010). Results indicated that although there were no significant differences between the groups, there was a significant positive association between the amount of individual practice outside the classroom and improvement in psychological well-being and mindfulness. Additionally, the improvement in well-being was related to personality variables such as agreeableness and emotional stability (Huppert & Johnson, 2010). Recommendations for

future research indicated possibly using different questionnaires as the ones they used were validated on adults. Moreover, they identified that individuals may actually demonstrate a decrease in the initial use of mindfulness skills until they have had enough training that leads to more consistent improvement (Huppert & Johnson, 2010).

Schonert-Reichl et al. (2015) used a mindfulness curriculum to evaluate cognitive control, stress reduction, well-being, and prosociality, as well as overall school outcomes. Ninety-nine 4th and 5th graders were randomly assigned to the MindUP curriculum (mindfulness program) or a typical social responsibility program. Multiple measures were used including salivary cortisol, self-report questionnaires, peer reports, and math grades. Results indicated that individuals in the mindfulness program had statistically significant improvements in cognitive control and stress physiology; reported greater empathy; optimism and self-concept; decreased rates of aggression and depression; had higher peer ratings of sociability; and increased peer acceptance (Schonert-Reichl, 2015).

Dariotis et al. (2017) evaluated a mindfulness yoga curriculum with teachers plus 5th and 6th grade students utilizing a qualitative, process-orientated approach. The authors were guided by two overarching questions: "(1) What aspects of the program were well- and ill-received by students and teachers? and (2) What additional factors—programmatic, contextual, perceptions—promoted or hindered program participation?" (Dariotis et al., 2017, pg. 54). The sample included students and teachers from three economically disadvantaged public schools in Baltimore, based on crime rates, unemployment, median household income, and educational attainment statistics (Dariotis et al., 2017).

The mindfulness yoga program aimed to enhance students' emotional and cognitive regulatory practices, which was conducted via the Holistic Life Foundation's three yoga instructors, a company unrelated to the school district. There were also three schools considered as waitlist controls. One hundred twenty-two participants received 45-minute sessions twice per week over the course of 16 weeks during their resource and/or lunchtime (Dariotis et al., 2017). Sessions included "centering practices, active yoga-based poses (e.g., sun salutations), breathing techniques, guided mindful reflection, and brief discussions on health-related topics" (Dariotis et al., 2017, p. 56).

After the intervention, 22 students participated in focus groups to discuss their experiences. These groups were facilitated by a female moderator, lasted 35 minutes, and contained between two and six students. In addition, seven teachers participated in focus groups and two teachers completed individual interviews. All interviews and focus group were transcribed using an inductive coding process with a three team member approach (Dariotis et al., 2017). Four themes emerged from these focus groups, with sub-themes in parentheses: (1) program delivery factors (timing, environment, logistics); (2) implementer communication with teachers (program goals, concerning students, program logistics); (3) promoting program buy-in (skills generalization, teacher training, optimizing student exposure, incentivizing teachers, voluntary participation); and (4) yoga instructor qualities (Dariotis et al., 2017). The authors concluded that having perspectives from both students and teachers is useful in identifying strengths and needs in future mindfulness yoga programs with upper elementary and middle school students.

As one can see, mindfulness trainings and related practices can have a significant impact on a wide range of students from a variety of countries, socio-economic

backgrounds, genders, and grade levels. Mindfulness practices provide a framework to develop the social-emotional learning competencies of students in order to enhance their awareness, self-management, and decision-making skills as well as sustain attention, control impulses, and work collaboratively with others. Therefore, one might question if mindfulness trainings significantly impact SEL for students, do they also impact the SEL of teachers.

Mindfulness for Teachers

Mindfulness practices provide useful and focused links for educators and the field of education at all levels (Hyland, 2014). Moreover, mindfulness has many health benefits for adults, including the activation of various regions of the brain, particularly those that handle difficult emotions under stress (Gazella, 2005). Jones (2011) notes that "mindfulness inherently increases self-awareness, and nurtures the capacity to regulate automatic emotional reactions to life; it's not just beneficial for the individual, but also for those around them" (p. 738). The SEL domains discussed earlier can pertain to educators as well, since their development and maintenance are key factors in establishing healthy student-teacher relationships, managing the classroom, and teaching social and emotional aspects of learning (Jennings & Greenberg, 2009).

In a standard mindfulness program for adults, groups of up to three individuals meet one – two hours a week for approximately ten weeks using the tools of metaphor, meditative exercises, discussion, and homework (Davis, 2012). These programs are generally led by medical professionals and are focused on a range of issues such as stress and pain management. These approaches have not only led to research in several areas but have demonstrated improvements in parenting skills; internalizing disorders;

romantic satisfaction; organ transplants; sleep disorders; compulsive gambling; and substance abuse (Davis, 2012).

The skill of consultation is increasingly becoming a central aspect to educational psychologists' activities (Davis, 2012). Preliminary research has indicated that mindfulness-based approaches have been found to help teachers cognitively by integrating decision making, flexible thinking, and reflection of difficult situations (Davis, 2012). Teachers have also demonstrated changes in sociability as they are better able to demonstrate perspective-taking skills, decrease judgmental stances, and increase empathic responses (Davis, 2012). Finally, attitudinal measures demonstrate that teachers are more willingly to enact their own values; reduce self-motivated interests; focus on the situation in an objective, non-judgmental manner; and develop genuine curiosity for a given situation (Davis, 2012).

When designing professional development for teachers, multiple domains of knowledge and skills are necessary for improving classroom teaching including content knowledge; best practices for teaching; developmental knowledge based on a students' age and/or ability level as well as professional dispositions or habits of mind (Roeser et al., 2012). Habits of mind can be defined as

> behaving intelligently when confronted with problems that may not have immediate answers and requires several skills such as gathering data through all of the senses, being aware of and reflecting on an experience in a nonjudgmental manner, demonstrating flexibility in problem solving, regulating emotions, being resilient after setbacks and attending to others with empathy and compassion (Roeser et al., 2012, p. 167).

Given that teachers can often feel stressed regarding high stakes testing, meeting students' academic and social emotional needs, and annual evaluations, these habits of

mind are required to enhance flexibility, self-regulation and self-management skills. One way to increase awareness and relaxation as well as control one's self more efficiently is through mindfulness-based techniques. Unfortunately, neither teacher education programs nor district professional development courses prepare teachers for the types of job demands that are inherent in the human services world.

Flook, Goldberg, Pinger, Bonus, and Davidson (2013) conducted a pilot study to evaluate the effects on stress, burnout, and teaching efficacy using a modified mindfulness curriculum. Eighteen public elementary school teachers were randomly assigned to participation or control conditions with evaluations in psychological distress, mindfulness and self-compassion, burnout, teacher classroom behavior, cortisol levels, attentional tasks, and mindfulness practice compliance. Results indicated that the interventions boosted aspects of self-compassion and teaching behavior as well as reduced distress and symptoms of burnout (Flook et al., 2013). Moreover, their results suggested teachers may be prone to increased physiological stress and decreased sense of personal accomplishments if they did not engage in mindfulness trainings (Flook et al., 2013). The authors indicated that mindfulness trainings are cost-effective since they translate into tangible benefits for the well-being and effectiveness of teachers, as well as for students well-being and learning (Flook et al., 2013).

Another study conducted by Gold et al. (2010) evaluated the Mindfulness-Based Stress Reduction (MBSR) program for 11 primary school teachers from a suburban neighborhood. Assessments gained information related to Depression, Anxiety and Mindfulness Skills before and after an eight-week course. Findings demonstrated an overall reduction in stress and internalizing concerns (Gold et al., 2010). Brief qualitative

comments from participants provided information such as "'I wish I'd known about it 30 years ago'; 'I now find the time to sit quietly'; 'the key ideas for me are being accepting and non-judging'; and responding not reacting, it teaches us to take control'" indicated positive outcomes of the training as well (Gold et al., 2010, p. 187-188.)

Jennings (2014) evaluated teachers' psychosocial characteristics as they related to the dimension of burnout and quality of childcare environments. Thirty-five preschool teachers rated themselves on a variety of well-being measures as well as attitudes towards students, in conjunction with observations of classroom quality and semi-structured interviews. Results from questionnaires demonstrated that several qualities were positively associated with emotional support including mindfulness, compassion, and self-efficacy, but depersonalization and emotional exhaustion had a negative association (Jennings, 2014). Moreover, interview ratings illustrated that mindfulness and efficacy were positively related to sensitivity to discipline and perspective taking (Jennings, 2014). This information provides support for how attitudes and perceptions of teachers can be influenced by trainings in awareness and self-management. Additionally, the results provide useful information in personal characteristics that enhance a supportive classroom (Jennings, 2014).

Since 2016, more studies have evaluated the relationship between mindfulness, teacher self-efficacy, school climate, and burnout. Several of these studies have looked at the relationship between these factors quantitatively, while one study assessed this information from a qualitative perspective. Additionally, some studies utilized a single school's population of teachers and students, while others evaluated a certain level of teacher or student such as middle and high school. Finally, a meta-analysis evaluated the

impact of mindfulness interventions and teacher outcomes. The information will be reviewed below.

Bradley et al. (2018) conducted a pilot study in one K-8 school utilizing an SEL and wellness program, entitled The Four Pillars of Wellbeing (Seligman, Steen, Park, & Peterson, 2005), to assess the psychological, social and emotional climate of its teachers and students. This curriculum encompasses four thematic units including Mindfulness, Community, Self-Curiosity, and Contentment and Balance (Bradley et al., 2018). The Mindfulness section has 15 lessons, which provides information on mindful breathing and awareness of sensations whereas the 10 Community lessons focuses on prosocial behaviors and strengthening of interpersonal relationships (Bradley et al., 2018). The Self-Curiosity section (10 lessons) allows students and teachers to better understand and create interest in their emotional experiences, whereas the Contentment and Balance series (10 lessons) allows participants to cultivate unconditional self-acceptance (Bradley et al., 2018). In order for teachers to deliver this curriculum, they participant in a two day training to learn about the nature of the program and then receive access to a one hour online course to delve deeper into the topics they will be teaching. Students receive one 20-minute lesson each week (Bradley et al., 2018).

Bradley et al. (2018) had several hypotheses which included (1) teacher well-being will be increased directly via concepts taught directly in the program such as mindfulness, self-compassion, contentment and teaching efficacy; (2) teacher well-being will be improved; (3) positive well-being outcomes will be correlated to the use of the practices personally and professionally; (4) student emotional climate will improve; and (5) student social emotional intelligence will improve as well.

The study took place at the Corbett Preparatory School, a private K-8 school in Tampa, Florida during the 2016–2017 school year. Forty-nine teachers (37 females, 12 males) participated in the study with a mean age of 45.9 years. Five hundred and seven students participated as well (258 males, 249 females) with a mean age of 9.3 years (Bradley et al., 2018). Teacher well-being was measured utilizing a battery of surveys taken before and after the implementation of the curriculum, which evaluated occupational burnout, contentment, relationship satisfaction, teacher efficacy, self-compassion, job satisfaction, perceived stress, and mindfulness. A second measure included a weekly implementation fidelity survey that evaluated teacher subjective well-being, number of minutes spent teaching concepts from the curriculum each week, and the total number of minutes the teacher spent practicing for the week. Student outcomes were measured utilizing a Mood Meter four times during the school year, twice as a pre-assessment and twice as a post-assessment (Bradley et al., 2018).

Results were assessed with nine repeated measures ANOVAs related to the nine biannual well-being surveys with a Benjamin-Hochberg correction (Bradley et al., 2018). Results demonstrated statistically significant effects between pre- and post-assessment on levels of contentment, self-compassion, and teaching efficacy. Results were not significant for the effects of time on mindfulness, occupational burnout, psychological well-being, relationship satisfaction, job satisfaction, and perceived stress (Bradley et al., 2018). For students, changes were significant for mood between the pre- and post-assessment. Therefore, the authors concluded that the SEL program made significant impacts, both directly and indirectly, on teachers and students overall well-being with room for improvement related to sample size and direct measures (Bradley et al., 2018).

Jennings et al. (2017) also assessed teachers' social and emotional competence as well as classroom interactions utilizing the Cultivating Awareness and Resilience in Education (CARE) mindfulness program within a cluster randomized trial design. The CARE for teachers program is a mindfulness-based professional development program that contains elements of emotional skills instruction, mindful awareness, stress reduction techniques and caring/listening practices. The authors hypothesized that teachers enrolled in the program would improve responses in adaptive emotion regulation, teaching efficacy, and mindfulness. In addition, the participants would experience a reduction in psychological distress and physical distress (Jennings et al., 2017). Additional hypotheses included that teachers trained in the CARE program would "exhibit higher levels of emotional support, better classroom organization, as well as perceiving the program as having high social importance and acceptability compared to those teachers in the control group" (Jennings et al., 2017, pp. 1013-1014).

Public elementary schools in a high poverty region of New York City were recruited through a lengthy process at two different times between Spring 2012 and Spring 2013. Participants were split across grades K – 5th with a median age of 40 years. Racial makeup of the cohorts included 33% Caucasian, 31% Hispanic, 26% African American, 5% Asian and 5% mixed race. Time in the profession ranged from 0 – 32 years (Jennings et al., 2017). Block randomization was utilized as well as randomization within the school in order to maintain balance amongst specific numbers of teachers in each group. Each intervention was provided for 30 hours over five in-person training days and participants were compensated at the district approved training rate (Jennings et al., 2017). Measures included a battery of online self-assessments and assessments of

students taken before and after the intervention, as well as classroom observations by trained, independent observers in both the fall and spring using the CLASS (Pianta, La Paro, & Hamre, 2008). The self-report measures included topics similar to Bradley et al. (2018), such as adaptive emotion regulation; teaching efficacy; mindfulness; psychological distress; physical distress; and social validity (Jennings et al., 2017).

Data were reduced utilizing exploratory factor analysis to determine higher-level constructs, in addition HLM and HLGM techniques were utilized in data analysis. Results from the self-report measures indicated statistically significant differences over time for adaptive emotion regulation; mindfulness; psychological distress, and time urgency (Jennings et al., 2017). Moreover, the CLASS observations noted a statically significant positive effect for "emotional support, positive climate and teacher sensitivity, classroom organization and productivity" (Jennings et al., 2017, p. 1020). Therefore, learning these mindfulness and stress reduction skills can have both direct and indirect impacts on a classroom teacher as a professional as well as improve interactions with students.

Reiser, Murphy, and McCarthy (2016) conducted a six-week psychoeducational and support group for teachers utilizing a stress prevention and mindfulness framework entitled SPAM. A battery of questionnaires was given as pre- and post-assessments that evaluated "teachers' perceptions of classroom demands and resources; job satisfaction; and mindfulness. In addition, teachers completed short surveys at the end of each session to evaluate session effectiveness and utility in order to provide feedback to leaders" (Reiser, Murphy & McCarthy, 2016, p. 122).

Participants included teachers from a public charter school in the Southwest United States, which began with 25 teachers at the first session and ended with seven teachers completing more than half of the sessions. Six, one hour group sessions occurred after students were dismissed on varying days of the week from September to November in a classroom equipped with technology to display PowerPoint presentations. Groups were facilitated by a psychologist and two counseling psychology students, and consisted of whole group presentation/discussion as well as individual practice with curriculum adapted from Optimizing Your Potential (University of Texas Counseling and Mental Health Center) (Reiser et al., 2016). Sessions topics included an introduction to teacher stress and mindfulness; stress response and its consequences; stress and thinking; mindfulness as a coping resource; and mindfulness communication (Reiser et al., 2016).

Results demonstrated no statistically significant differences from pre-assessment to post-assessment; however, there was a positive trend for job satisfaction amongst group members (Reiser et al., 2016). Given the variability in group attendance and difficulty with getting participants to complete both assessments, these results are not surprising. However, responses on open-ended questions for weekly exit tickets indicated "thoughtfulness and engagement throughout the group sessions" (Reiser et al., 2016, p. 130-131). Authors noted several valuable takeaways from this research including having a facilitator who was familiar with the school setting, which aided in scheduling and navigating the school system, as well as the enjoyment of having a group format in overall learning of new concepts (Reiser et al., 2016).

Cook et al. (2017) also contributed to the growing body of research as it relates to teachers, mindfulness, job satisfaction and burnout. They utilized the ACHIEVER Resilience Curriculum (ARC) to evaluate the

> impact of the ARC on indicators of teachers' well-being, as well as their perceptions regarding the acceptability, reasonableness, and effectiveness of the ARC. A secondary aim of this study was to examine whether teachers' intentions to implement EBPs improved as a function of receiving the ARC (Cook et al., 2017, p. 15).

Recruitment was conducted via a flyer which offered access to free web-based training to manage job related stress and overall well-being (Cook et al., 2017). Forty-four secondary (12 middle school, 32 high school) teachers from a single educational district in the Midwest United States participated and received continuing education credits for their involvement in the project. The average years of teaching experience was 11.8, with a majority (n=40) identifying as Caucasian.

Procedures included utilizing a randomized block control design in which 22 pairs of teachers were created utilizing data from a pre-assessment measuring teacher stress. After the pairs were created, they were randomly assigned to the ARC group or an attentional-control (AC) group. The ARC treatment group received five separate 2.5 hour ARC sessions implemented by the first author and a doctoral level school psychologist via the Adobe Web Connect conferencing system. They used the Know, See, Do, and Improve method (Joyce, Weil, & Calhoun, 2004), whereas the AC group met with central administrators in a PLC format to discuss instructional and classroom management challenges with four guiding questions at each session (Cook et al., 2017). Individuals in both the ARC and AC groups completed a group of surveys before and after the intervention, which included measures of perceived stress, teacher self-efficacy,

satisfaction with work, intentions to implement evidence-based practices, and social validity of mindfulness (only as a post measure). Incentives included the opportunity to be one of three individuals eligible for a $50 gift certificate (Cook et al., 2017). Results revealed that

> the ARC intervention produced a significant impact on all four outcomes measured such that teachers reported moderate reductions in perceived stress, moderate improvements in self-efficacy, moderate increases in job satisfaction, and moderately stronger intentions to implement EBPs than teachers assigned to the AC group (Cook et al., 2017, p. 23-24).

In addition, Cook et al. (2017) noted that the social validity findings are particularly worth noting, considering that teachers perceived the ARC to be "feasible, acceptable, appropriate, and effective" (p. 24). The outcomes of this research indicate the importance of stress management for teacher preparation programs; the creation of school district infrastructure to target current teachers' well-being; and the importance of mindfulness strategies for improved efficacy (Cook et al., 2017).

Klingbeil and Renshaw (2018) conducted a meta-analytic review of 29 studies that evaluated the effects of mindfulness practices on teachers. The authors conducted this meta-analysis with four guiding questions:

> (1) What is the overall treatment effect (i.e., across all out-come domains) of MBIs with teachers at posttreatment? (2) How is the overall treatment effect of MBIs moderated by the following study-level characteristics: (a) randomization, (b) interventionist, and (c) dosage? (3) What is the specific effect of MBIs with teachers on the following therapeutic process domains: (a) mindfulness, and (b) mechanisms of mindfulness? (4) What is the specific effect of MBIs with teachers on the following treatment outcome domains: (a) psychological well-being, (b) psychological distress, (c) physiological indicators, and (d) classroom climate and instructional practices? (Klingbeil & Renshaw, 2018, p. 503).

A comprehensive search was completed in April 2018 utilizing several databases with keywords included "mindfulness" and "mindful," which were each combined with

"intervention," "training," and "prevention." These search terms were paired with the population keywords "teachers" and "educators" (Klingbeil & Renshaw, 2018). They also conducted a review of the of the references in other articles as well as published systematic reviews, conceptual articles, and chapters related to using MBIs with teachers. Lastly, they searched websites of popular teacher-focused MBIs and a total of 751 articles were screened for inclusion.

Criteria for inclusion consisted of "the provision of a MBI with teachers who worked in a pre-K–12 setting, defined as any intervention that trains mindfulness skills as the primary therapeutic component for obtaining desirable outcomes" (Klingbeil & Renshaw, 2018, p. 503). Studies were then coded on the basis of

> 27 different characteristics including intervention and interventionist characteristics; setting and participant characteristics; program length and dosage; outside practice recommendations; intervention fidelity data and the use of random assignment (Klingbeil & Renshaw, 2018, p. 503-504).

Three moderating variables included random assignment, type of interventionist, and dosage as a continuous variable. Overall, 29 studies ended up being included in the meta-analysis.

Results noted that articles were published in a variety of languages; had different styles of randomization; were administered over the course of 2 – 36 weeks; and ranged from 1.67 – 74.75 hours in total. In addition, some studies discussed homework and practice as well as the collection of treatment fidelity data and quantitative fidelity data. Further analysis identified that "MBIs had the smallest effects on measures of classroom climate and instructional practices through the use of meta-regression and robust variance estimation" (Klingbeil & Renshaw, 2018, p. 501). In addition, the authors noted a

possible, slight positive bias in publication using unweighted average effect size and then synthesizing them using a random effects model. Klingbeil and Renshaw (2018) concluded "MBIs may have, on average, a medium treatment effect on teachers' self-reported outcomes and a smaller effect on classroom climate and instructional practices" (p. 508).

Therefore, recent research has provided meaningful evidence that mindfulness practices have a positive and significant impact on both individual perceptions of self-efficacy and the various aspects of it (Bradley et al., 2018; Cook et al., 2017; Davis, 2012; Flook et al., 2013; & Jennings, 2014) as well as the contextual factors of school climate (Klingbeil & Renshaw, 2018). However, these studies have not necessarily evaluated these concepts in combination. This study sought to identify some of these factors further in better understanding how mindfulness trainings can help support educator's prosocial stress management practices on both an individual level and global level. As such, the following research questions are proposed:

1. Is there a significant difference for educators from pre-assessment to post-assessment on the Teachers Sense of Self-Efficacy Scale, Long Form…
    a. Efficacy in Instructional Strategies?
    b. Efficacy in Classroom Management?
    c. Efficacy in Student Engagement?
2. Is there a significant difference for educators from pre-assessment to post-assessment on the Yale School Climate Survey, Revised Edition, School Staff Version…
    a. Order and Discipline Scale?
    b. Leadership Scale?

c. School/Parent Community Relations Scale?

d. Staff Expectations Scale?

e. School Building Scale?

f. Equity and Fairness Scale?

g. Staff Dedication to Student Learning Scale?

h. Collaborative Decision Making Scale?

i. Achievement Motivation scale?

Therefore, it is hypothesized that mindfulness trainings will alter school employee's perceptions about themselves as public educators by demonstrating changes in their ratings related to Efficacy in Instructional Strategies, Efficacy in Classroom Management and Efficacy in Student Engagement. Additionally, the researcher hypothesized that each participant will have a modified perception of school climate after the mindfulness trainings, particularly related to perceptions of Order and Discipline, Leadership, School/Parent/Community Relations, Staff Expectations, School Building, Equity/Fairness, Staff Dedication to Student Learning, Collaborative Decision Making and Achievement Motivation.

CHAPTER THREE: METHOD

The goal of this study was to explore the impact of mindfulness trainings on school-based staff's perceptions of teaching self-efficacy and school climate. Trainings were provided over four weeks of the school year using a modified version of the MindUP curriculum (The Hawn Foundation, 2011). The researcher hypothesized that these trainings would have a direct impact on school-based professionals by allowing each individual to make improvements in his or her ability to engage students cognitively, manage behaviors in the classroom, enhance instructional strategies, alter perceptions regarding building expectations, and improve relationships with colleagues and administrators. Teacher burnout and perceptions of self-efficacy were measured with the Teachers' Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001). Additionally, teachers' perceptions of school climate were measured using the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002).

The researcher had two hypotheses, the first of which was that mindfulness trainings would alter school employee's perceptions about themselves as public educators by demonstrating changes in their self-efficacy ratings related to student engagement, instructional strategies, and classroom management. Additionally, the researcher hypothesized that participants would have an altered view of school climate along nine dimensions such as their relationships with students, parents, teammates and

administrators; perceptions about order, discipline, equity and fairness; opinions related to the physical environment of the school building; and finally attitudes towards leadership and collaborative decision making. The following research questions guided the study.

Research Questions

1. Is there a significant difference for educators from pre-assessment to post-assessment on the Teachers Sense of Self-Efficacy Scale, long form…
    a. Efficacy in Instructional Strategies?
    b. Efficacy in Classroom Management?
    c. Efficacy in Student Engagement?
2. Is there a significant difference for educators from pre-assessment to post-assessment on the Yale School Climate Survey, school staff version, revised edition…
    a. Order and Discipline Scale?
    b. Leadership Scale?
    c. School/Parent Community Relations Scale?
    d. Staff Expectations Scale?
    e. School Building Scale?
    f. Equity and Fairness Scale?
    g. Staff Dedication to Student Learning Scale?
    h. Collaborative Decision Making Scale?
    i. Achievement Motivation scale?

Participants

A convenience sample of 35 certified educators from five schools in a large urban, public school district in the western United States participated in the study. Certification was based on current employment in the school district. Each school where trainings were completed is considered "Urban" based on the National Center for Education Statistics Search for Schools and Colleges Database definitions (n.d.). Although 35 individuals participated in the training, the data described below includes only 29 participants due to substantial incomplete data from the other six participants.

Based on demographic information, there were 28 female educators (96.6%) and 1 male educator, (3.4%). Eight participants (27.6%) worked with preschool students, 10 participants (34.4%) identified as working with elementary level students (Kindergarten – 5th grade); one participant (3.4%) worked with students at the middle school level (6th – 8th Grade) and 10 participants (34.5%) identified as working with students in multiple grades. A breakdown of job descriptions indicated that 24 (82.8%) individuals were general education classroom teachers, one (3.4%) individual was considered non-instructional support staff, and four (13.8%) participants identified as "Other" which included an Interventionist, Special Education Teacher, Gifted/Talented Teacher, and Teacher Leader/Integrated Arts Teacher. Self-report information indicated that 75.9% of the sample identified as Caucasian (n = 22), 10.3% as Latino American (n = 3), 6.9% as Multiple Races (n = 2), 3.4% as African American (n = 1), and 3.4% as Asian (n = 1). Experience in education ranged from one year – 25 years (mean = 9.86, SD = 7.42) with a median length of time of eight years. The length of time at the current school ranged from 0 – 18 years (mean = 3.52, SD = 4.23).

Instruments

Teachers' Sense of Efficacy Scale, long form. The Teachers' Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001) assesses a teachers' sense of perceived self-efficacy based on 24 statements. These statements are rated on a nine-point scale ranging from "Nothing" to "A Great Deal" depending on how well that individual feels the statement describes his or her current perception. The responses are coded as follows: "Nothing =1; Very Little = 3; Some Influence = 5; Quite a Bit = 7; and A Great Deal = 9." There are no descriptors for the even numbers on the scale. This instrument was developed with students enrolled at the Ohio State University (Tschannen-Moran & Hoy, 2001). Several formats were explored, with the basis being Bandura's Teacher Self Efficacy Scale (no date). Seminar members selected items from the scale that he or she believed represented important teaching tasks. In addition, a pool of 100 other items were created using nomination, discussion, and revision, ultimately leading to a 52-item scale (Tschannen-Moran & Hoy, 2001). Three pilot studies were then conducted using principal-axis factoring with varimax rotation, second-order factor analysis, as well as an assessment of construct validity and discriminant validity (Tschannen-Moran & Hoy, 2001). Within each of these studies, the measure was refined through multiple iterations such that the final scale contains 24 items.

This measure was chosen because its scales isolate and evaluate teaching self-efficacy and do not include larger school contextual and climate factors. The following scales and their reliability values are provided for the survey: Ohio State Teacher Efficacy Scale Total Score, (α = .94); Efficacy in Instructional Strategies, 8 items (α = 91); Efficacy in Classroom Management, 8 items (α = .90); and Efficacy in Student

Engagement, 8 items (α = .87). Construct validity was evaluated using correlation between this measure and other existing measures related to teaching self-efficacy. Additionally, discriminant validity was assessed using surveys of work alienation, as this was a construct negatively related to teacher self-efficacy (Tschannen-Moran & Hoy, 2001). The authors granted permission for use on August 4, 2016. A brief description of each scale can be found in Appendix G.

Yale School Climate Survey, school staff version, revised edition. The Yale School Climate Survey, Revised Edition, School Staff Version (Emmons et al., 2002) assesses educators' perspectives of predominant school conditions. School staff members respond to 54 questions based on a five-point Likert Scale ranging from "Strongly Agree" to "Strongly Disagree" depending on how well that individual feels the statement describes his or her school. The responses are coded in the following way: Strongly Agree = 5; Agree = 4; Not Sure = 3; Disagree = 2; Strongly Disagree = 1. Twelve items are reverse coded after the frequency analyses on individual items have been performed, but before means of the variables are computed or any inferential analysis completed. All the variables are scored in a positive direction, thus the higher the score on the variable, the greater the amount of that quality that staff member perceives the school as having. The highest possible mean score on a variable is 5.0. The lowest possible mean score is 1.0 (Emmons et al., 2002).

The following scales and their reliability values are provided for the survey: Order and Discipline, 9 items (α = .93); Leadership, 7 items (α = .90); School/Parents/Community Relations, 7 items (α = .89); Staff Expectations, 6 items (α = .87); School Building, 5 items (α = .87); Equity and Fairness, 5 items (α = .86); Staff

Dedication to Student Learning, 5 items (α = .85); Collaborative Decision Making, 5 items (α = .84); and Achievement Motivation, 5 items (α = .78) (Emmons et al., 2002). The authors granted permission for use on July 18, 2016. A brief description of each scale can be found in Appendix H.

MindUP Curriculum

This study utilized a modified and adapted version of the MindUP curriculum (Hawn Foundation, 2011), which is an

> evidence-based curriculum with 15 lessons that foster social and emotional awareness, enhance psychological well-being and promote academic success by promoting mindful attention to oneself and others, tolerance of differences and the capacity of each member of the community to grow as a human being and learner (p. 6).

Each lesson begins with background information related to the brain as well as guidelines for making these concepts accessible to students in kindergarten through eighth grade. Additional lesson touch points include a warm-up, reflective lessons, connections to various academic content areas and extension activities.

The Hawn Foundation (no date) provides a critical research summary regarding their mindfulness-based strategies in which two published studies have identified several positive outcomes. In both of these studies, a group of students received the MindUP curriculum while the control group did not. Pre-assessment and post-assessments evaluated several domains of functioning with statistically significant results for the experimental groups. Findings included that students demonstrated interest and acceptance in the program; ratings for self-concept, optimism, and social-emotional competence improved, as well as a decrease in ratings for aggressive and anti-social behaviors (Hawn Foundation, no date). Additionally, teachers saw and experienced

positive gains in their classrooms related to student engagement and management, as well as teachers feeling better about the profession itself (Hawn Foundation, no date).

Curriculum adaptation and modification. The researcher selected this curriculum because it was cost effective and user-friendly, as it only contained one manual. In addition, because it is written for students, the researcher felt that the information would be accessible and easily understood by educators. The curriculum for students contains 15 lessons, divided into four units, each containing three to five detailed lessons that provided explicit and detailed instruction around mindfulness and extension activities based on Common Core Standards for each academic subject. The four units are entitled (1) Getting Focused, (2) Sharpening Your Senses, (3) All About Attitude and (4) Taking Action Mindfully (Hawn Foundation, 2011). Each lesson was then broken up into several sections including (1) Linking to Brain Research which is an overview of information; (2) Getting Ready with goals and materials for the lesson; (3) MindUP Warm-Up; (4) Leading the Lesson through The Brain In Action activities and discussions around MindUP In the Real World (including journal writing activities); and (5) Extension activities that Connect the Curriculum to various academic content areas as well as utilizing a Literature Link with books to demonstrate the themes discussed in a particular lesson (Hawn Foundation, 2011).

Given that some of the information would not be applicable for adult instruction, the researcher wanted to maintain the integrity of the curriculum's structure and organization, but consolidated each of the units to reduce redundancy between lessons. Therefore, all of the four units' lessons were combined to create one training per unit. Each of the trainings included a combination of direct instruction, independent practice

and/or small group activities over the course of 45 – 60 minutes. The Linking to Brain Research sections and Goals were combined to provide the lecture portion of each of the trainings. The MindUP Warm-Up and Leading the Lesson (including journal writing) were considered the active participation portion of the trainings. The Literature Link and Extension activities were provided at the end of each training so that the participants were able to access additional resources if they so desired. The researcher provided all of the materials for the small group activities, including handouts from the curriculum as well as art supplies and writing utensils. The information listed below is a brief overview of the sessions that were completed with participants. A lengthier description of each session with goals and objectives is provided in Appendix J.

Training 1: Informed consent, pre-assessments, MindUP Lessons 1 – 3 (Unit 1)

Training 2: MindUP Lessons 4 – 9 (Unit 2)

Training 3: MindUP Lessons 10 – 12 (Unit 3)

Training 4: MindUP Lessons 13 – 15, post-assessments (Unit 4)

Procedures

Institutional Review Board. The researcher received initial, exempt approval for the study by the University of Denver's Institutional Review Board (IRB) in January 2017. Upon receiving this approval, the researcher submitted documents to the school district's Research Review Board (RRB) to collect data with certified educators in the district. Approval was granted by the Department of Accountability, Research and Evaluation in March 2017.

Recruitment. A standard email (Appendix A) was sent to all 15 principals in the researcher's district identified network detailing the objectives and logistical information

for the study. Attachments to this email included the recruitment flyer (Appendix B), the district's executive summary (Appendix D), time requirement form (Appendix E) and Principal Consent for Approval (Appendix F) to share with their staff. The researcher initially scheduled two information sessions with two principals. The researcher and these two principals agreed on weekly trainings to begin in the Fall 2017. Another principal with whom the researcher had a professional relationship requested an overview training in November 2017.

Given the low response rate, an amendment to the DU IRB to open recruitment to the entire district was submitted and approved in June 2017 as well as by the school districts' RRB in August 2017. In addition, an approval to extend data collection until January 2020 was provided by the DU IRB in December 2017. The researcher then expanded the recruitment efforts directed at the managers of the Speech and Language Department; Social Work and Psychological Services Department; Occupational and Physical Therapy Department; Counseling Department; and Health and Wellness Department. In addition, the researcher visited each of the 15 schools in person in order to distribute the executive summary, time requirement document, and flyer. The standard email was re-sent to the principals as well.

The head of the Department for Health and Wellness reached out to the researcher and requested to include the information in her winter newsletter; the researcher was able to recruit two schools from this communication. A total of five principals gave permission for the trainings to take place in their buildings, which occurred in four consecutive weeks during the 2017 - 2018 school year. A complete list of participating schools, with number of participants and dates of training, can be found in Appendix I.

Implementation. For each initial session, the researcher introduced herself, summarized the purpose of the trainings and clarified the dates of the trainings. Next, the researcher reviewed informed consent including the benefits and risks of the study (Appendix C). To allow participants to read the consent forms, the researcher left the classroom but remained close should there be any questions. Once the final person was finished reading the consent form, they notified the researcher, who then re-entered the room and discussed the demographic questionnaire and the two pre-assessments. Again, the researcher removed herself from the room so as to not influence the participants' responses. Again, she remained near the room should anyone have questions. Once everyone finished, the researcher collected the completed surveys and the trainings began. At the end of the first session, the researcher made and provided a copy of each participant's informed consent paperwork.

Sessions two and three included a review of the previous weeks' information, as well lecturing on the current weeks' topic, participating in scheduled activities and answering any follow up questions that arose. Session four was similar, with the only difference being a completion of the two assessments at the end of the session. Attendance was taken during each session for the sole purpose of entering the participants into the drawing for one of three $50 Amazon gift cards. For individuals that attended all four sessions, their names were entered into a random selection generator on Tuesday, July 10, 2018. Individual emails were sent to the three winners via their district email addresses and gift cards were distributed on August 2, 2018. Participants received copies of the PowerPoints via their district email address in January 2019.

Analysis. A quantitative approach using Repeated Measures ANOVA made logistical and interpretive sense in order to compare differences in scores over time in an educator's perceived sense of self-efficacy and perspectives on school climate before and after the mindfulness interventions. Each of the surveys utilized Likert scales, whose values are considered interval level variables and therefore means can be derived and their differences can be evaluated. Because ANOVAs assess the differences in mean scores, this approach was the most useful to understand changes in teaching self-efficacy and school climate over time.

For teaching self-efficacy a 2x3 repeated measures design was utilized such that the independent variable was time with two levels, pre-assessment and post-assessment. The dependent variable was one of the three scales from the Teachers' Sense of Self-Efficacy Scale (Tschannen-Moran & Hoy, 2001), either Efficacy in Instructional Strategies, Efficacy in Classroom Management or Efficacy in Student Engagement. For school climate, a 2x9 repeated measures design was used such that the independent variable was time, with two levels, pre-assessment and post-assessment. The dependent variables were each of the nine scales from the School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002): Order and Discipline, Leadership, School/Parent/Community Relations, Staff Expectations, School Building, Equity and Fairness, Staff Dedication to Student Learning, Collaborative Decision Making, or Achievement Motivation. Detailed information is provided in the Results section.

CHAPTER FOUR: RESULTS

Demographic information and assessment results were collected for 35 participants; however, only 29 pairs of data were analyzed due to significant amounts of missing information for the other six participants. These missing data included an absence of completion of entire post-assessments for five individuals on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) and for six individuals on the Teachers' Sense of Self-Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001). In order to maintain consistency throughout data analysis, only 29 pairs of data were used for both evaluations. G*Power analyses indicate that a minimum of 27 participants was required to meet the threshold for acceptable power (power = .70). Type I error rate of $\alpha = .05$ was used to determine statistical significance related to change over time from pre-assessment to post-assessment for each of the dependent variables (Gamst et al., 2008).

Twelve repeated measures ANOVAs were conducted to determine if there was a significant change in individual's perceptions of teaching self-efficacy and school climate over a period of four weeks with mindfulness interventions. All assumptions were checked and met utilizing SPSS software, including independence of observations, interval level dependent variable, a normal distribution of the dependent variable, and sphericity. A more detailed discussion, including information about outliers is discussed

per each analysis. It is important to note that a Type I error correction was not used for the twelve analyses due to the exploratory nature of this pilot study.

Teachers' Sense of Efficacy Scale, Long Form

For teaching self-efficacy, a repeated measures design was utilized such that the independent variable was time with two levels, pre-assessment and post-assessment. The dependent variable was the mean score on the Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management scales. Information was taken from 29 participants who completed full batteries of the pre- and post-assessments. Outliers were determined utilizing observations of box plots as well as the skewness guideline range of -1 to +1 (Gamst et al., 2008). Results are provided in Table 1, page 85.

Efficacy in student engagement. Twenty-nine participants completed all eight questions for the Student Engagement Scale on Teachers' Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001) pre- and post-assessments. Assumptions of independence, sphericity, and normality were met for both the Student Engagement pre-assessment (skewness = .14) and Student Engagement post-assessment (skewness -.26). No outliers were observed for either assessment utilizing observation of box plots. Mean results indicated that perceptions for Student Engagement on the pre-assessment was 6.91 (SD = 1.09) and on the post-assessment 7.22 (SD = .80). A one-way within-subjects ANOVA did not reveal a statistically significant difference in the Student Engagement pre-assessment and post-assessment means, F (1,28) = 3.05, $p > .05$, $\eta^2 = .10$ with an observed power of .39.

Efficacy in instructional strategies. Twenty-nine participants completed all eight questions for the Instructional Strategies Scale on Teachers' Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001) pre- and post-assessments. Assumptions for independence, sphericity, and normality were met for both the Instructional Strategies pre-assessment (skewness = -.44) and Instructional Strategies post-assessment (skewness = -.23). Three outliers were observed for pre-assessment and one outlier was observed on the post-assessment. Because Case 14 was considered an outlier for both the pre- and post-assessment, it was removed from analyses. However, cases 25 and 27 remained in the analyses due to the small sample size. Mean results indicated that perceptions for Instructional Strategies on the pre-assessment was 7.31 (SD = .75) and on the post-assessment 7.59 (SD = .74). A one-way within-subjects ANOVA revealed a statistically significant difference in the Instructional Strategies pre-assessment and post-assessment means, $F(1,27) = 4.56$, $p = .04$, $\eta^2 = .14$ with an observed power of .54.

Efficacy in classroom management. Twenty-nine participants completed all eight questions for the Classroom Management scale on Teachers' Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001) pre and post-assessments. Assumptions for independence, sphericity, and normality were met for both the Classroom Management pre-assessment (skewness = -.77) and Classroom Management post-assessment (skewness = -.59). One outlier was observed for the pre-assessment and zero outliers were observed on the post-assessment. These results remained in the analyses due to the small sample size and results did not differ when running analyses with outliers removed. Mean results indicated that perceptions for Classroom

Management on the pre-assessment was 7.06 (SD = 1.23) and on the post-assessment 7.20 (SD = 1.05). A one-way within-subjects ANOVA did not reveal a significant difference in the Classroom Management pre-assessment and post-assessment means, $F(1,28) = .75$, $p > .05$, $\eta 2 = .03$ with an observed power of .13.

Yale School Climate Survey, School Staff Version, Revised Edition

For school climate, a repeated measures design was used such that the independent variable was time, with two levels, pre-assessment and post-assessment (Gamst, Meyers, & Guarino, 2008). The dependent variable was the score on nine scales from the School Climate Survey, Revised Edition, School Staff Version (2002), either Order and Discipline, Leadership, School/Parent/Community Relations, Staff Expectations, School Building, Equity and Fairness, Staff Dedication to Student Learning, Collaborative Decision Making, or Achievement Motivation. Information was taken from twenty-nine participants who the completed full batteries of the pre- and post-assessments. Outliers were determined utilizing observations of box plots as well as the skewness guideline range of -1 to +1 (Gamst et al., 2008). If a case presented as an outlier on both the pre- and post-assessment then it was removed. If not, it remained in the analyses. Results are provided in Table 2.

Achievement motivation. Twenty-nine participants completed all five questions for the Achievement Motivation scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the Achievement Motivation pre-assessment (skewness = .28) and Achievement Motivation post-assessment (skewness = .60). No outliers were observed for either

assessment utilizing observation of box plots. Mean results indicated that perceptions for Achievement Motivation on the pre-assessment was 4.19 (SD = .38) and on the post-assessment 4.26 (SD = .37). A one-way within-subjects ANOVA did not reveal a significant difference in the Achievement Motivation pre-assessment and post-assessment means, F (1,28) = 1.92, $p > .05$, $\eta^2 = .06$ with an observed power of .27.

Collaborative decision-making. Twenty-nine participants completed all five questions for the Collaborative Decision-Making scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre and post-assessments. Assumptions for independence, sphericity and normality were met for both the Collaborative Decision Making pre-assessment (skewness = -0.42) and Collaborative Decision-Making post-assessment (skewness = -.52). Case 1 was considered an outlier on both the pre- and post-assessment and was removed from analyses. Cases 3, 24 and 25 were considered outliers on the post-assessment, but remained in the analyses due to small sample size and because it was within expected limits. Mean results indicated that perceptions for Collaborative Decision Making on the pre-assessment was 3.54 (SD = .58) and on the post-assessment 3.64 (SD = .68). A one-way within-subjects ANOVA did not reveal a significant difference in the Collaborative Decision Making pre-assessment and post-assessment means, F (1,27) = .71, $p > .05$, $\eta^2 = .03$ with an observed power of .13.

Equity and fairness. Twenty-nine participants completed all five questions for the Equity and Fairness scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre and post-assessments. Assumptions for independence, sphericity and normality were met for both the Equity

and Fairness pre-assessment (skewness = -.26) and Equity and Fairness post-assessment (skewness = -.19). Case 3 was considered an outlier on both the pre- and post-assessment and was removed from analyses. Mean results indicated that perceptions for Equity and Fairness on the pre-assessment was 4.11 (SD = .70) and on the post-assessment 4.20 (SD = .61). A one-way within-subjects ANOVA did not reveal a significant difference in the Equity and Fairness pre-assessment and post-assessment means, F (1,27) = 1.07, $p > .05$, $\eta^2 = .05$ with an observed power of .17.

Leadership. Twenty-nine participants completed all seven questions for the Leadership scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the Leadership pre-assessment (skewness = -.15) and Leadership post-assessment (skewness = -.15). No outliers were observed for either assessment utilizing observation of box plots. Mean results indicated that perceptions for Leadership on the pre-assessment was 3.88 (SD = .71) and on the post-assessment 3.81 (SD = .62). A one-way within-subjects ANOVA did not reveal a significant difference in the Leadership pre-assessment and post-assessment means, F (1,28) = .68, $p > .05$, $\eta^2 = .02$ with an observed power of .13.

Order and discipline. Twenty-nine participants completed all five questions for the Order and Discipline scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the Order and Discipline pre-assessment (skewness = -1.03) and Order and Discipline post-assessment (skewness = -1.4). Cases 10, 16 and 17 were considered outliers on both the pre- and

post-assessment and were removed from analyses. Case 14 was considered an outlier on the pre-assessment and Cases 12 and 20 are considered outliers on the post-assessment. However, they remained in the analyses due to small sample size. Mean results indicated that perceptions for Order and Discipline on the pre-assessment was 3.80 (SD = .46) and on the post-assessment 3.87 (SD = .42). A one-way within-subjects ANOVA did not reveal a significant difference in the Order and Discipline pre-assessment and post-assessment means, F (1,25) = 2.83 $p > .05$, $\eta^2 = .10$ with an observed power of .37.

School building. Twenty-nine participants completed all five questions for the School Building scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the School Building pre-assessment (skewness = .31) and School Building post-assessment (skewness = .35). No outliers were observed for either assessment utilizing observation of box plots. Mean results indicated that perceptions for School Building on the pre-assessment was 4.44 (SD = .39) and on the post-assessment 4.50 (SD = .38). A one-way within-subjects ANOVA did not reveal a significant difference in the School Building pre-assessment and post-assessment means, F (1,28) = .33, $p > .05$, $\eta^2 = .02$ with an observed power of .10.

School, parent, community relations. Twenty-nine participants completed all seven questions for the School, Parent, Community Relations scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the School, Parent, Community Relations pre-assessment

(skewness = -.47) and School, Parent, Community Relations post-assessment (skewness = -.76). Zero outliers were observed on the pre-assessment and one outlier was observed on the post-assessment; however results remained in the analyses due to the small sample size. Mean results indicated that perceptions for School, Parent, Community Relations on the pre-assessment was 3.66 (SD = .71) and on the post-assessment 3.82 (SD = .72). A one-way within-subjects ANOVA revealed significant differences in the School, Parent, Community Relations pre-assessment and post-assessment means, F (1,28) = 4.68, p = .04, η^2 = .14 with an observed power of .55.

Staff dedication to student learning. Twenty-nine participants completed all five questions for the Staff Dedication to Student Learning scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments. Assumptions for independence, sphericity and normality were met for both the Staff Dedication to Student Learning pre-assessment (skewness = -.09) and Staff Dedication to Student Learning post-assessment (skewness = -.10). Zero outliers were observed on the pre- and post-assessments using observations of box plots. Mean results indicated that perceptions for Staff Dedication to Student Learning on the pre-assessment was 4.41 (SD = .44) and on the post-assessment 4.47 (SD = .39). A one-way within-subjects ANOVA did not reveal a significant difference in the Staff Dedication to Student Learning pre-assessment and post-assessment means, F (1,28) = .73, $p > .05$, η^2 = .03 with an observed power of .13.

Staff expectations. Twenty-nine participants completed all six questions for the Staff Expectations scale on the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons, Haynes, & Comer, 2002) pre- and post-assessments.

Assumptions for independence, sphericity and normality were met for both the Staff Expectations pre-assessment (skewness = -.88) and Staff Expectations post-assessment (skewness = -.30). Zero outliers were observed on either the pre- or post-assessment using observation of box plots. Mean results indicated that perceptions for Staff Expectations on the pre-assessment was 4.45 (SD = .58) and on the post-assessment 4.43 (SD = .50). A one-way within-subjects ANOVA did not reveal a significant difference in the Staff Expectations pre-assessment and post-assessment means, F (1,28) = .09, $p > .05$, $\eta^2 = .00$ with an observed power of .06.

CHAPTER FIVE: DISCUSSION

Burnout, teaching self-efficacy and perceptions of school climate are hot topics in the field of education. Daily stressors such as large class sizes, student academic and behavioral concerns, lengthy statewide tests and stressful annual evaluations build throughout the school year and over the course of many school years. These constant pressures create feelings known as burnout, ranging from individual emotional exhaustion and work overload to interpersonal concerns such as detachment from teammates, as well as a decline in feelings of professional competence and productivity. The alarmingly high rate of educator turnover illustrates a critical juncture in education. Therefore, interventions are required to improve an educator's ability to manage student behaviors, provide quality instruction, keep students engaged, and maintain an atmosphere of collegiality and professionalism amongst school staff.

Mindfulness is a concept that is best understood as moment-to-moment, non-judgmental awareness. It is cultivated through the practice of meditation and other calming, conscious activities. These types of interventions are rapidly increasing in schools all over the world in order to improve both student and educator outcomes. This study sought to identify if mindfulness trainings improve teaching self-efficacy and perceptions of school climate during four weeks of training using a modified version of the MindUP curriculum. This curriculum was selected, as it was cost-effective, accessible and easily understood by educators. It was adapted such that each of the four units (15

lessons total) was consolidated into four trainings related to (1) getting focused, (2) sharpening the senses, (3) attitudes and perspective, and (4) taking action (Hawn Foundation, 2011). Each training included a combination of direct instruction, small group activities and independent practice over the course of 45 – 60 minutes. A convenience sample of twenty-nine certified staff from a large urban district in Colorado participated in the study. The researcher hypothesized that individuals would change their perceptions of self-efficacy and school climate using results from the Teacher Self-Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001) and the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons et al., 2002).

Twenty-nine pairs of pre- and post-assessment surveys were analyzed utilizing three Repeated Measures ANOVAs for the Teacher's Sense of Efficacy Scale, Long Form (Tschannen-Moran & Hoy, 2001). For the Efficacy in Instructional Strategies scale, participants' perspectives changed over the course of the four mindfulness trainings. That is, educators felt that during the learning of and participation in mindfulness instruction and activities, perceptions of their individual ability to feel effective in teaching academic content improved as a result of new learning. In addition, the small effect size is suggestive of a true, positive, and significant difference between the groups from pre-assessment to post-assessment. The researcher hypothesizes that this outcome is due to an educator's feeling of an internal sense of control and accomplishment over skills in this domain. During the practice of core breathing and mindful sensing as well as gaining knowledge in neurotransmitters and their role in understanding optimism, pessimism, and gratitude, participants improved their abilities to respond to difficult questions from students and modify lessons accordingly; gauge comprehension of student learning;

utilize a variety of assessment strategies; and implement alternative teaching strategies for a wide range of achievement levels of students.

Alternatively, the two scales of Efficacy in Student Engagement and Efficacy in Classroom Management did not reveal significant differences over the course of four mindfulness trainings. This information means that participants did not demonstrate significant changes in the perceptions of their ability to engage students or manage their classroom over the course of their learning and practice. The researcher hypothesizes that these results are due to participants feeling less in control of student behavior and management practices, possibly with the notion that many other factors contribute to these skills and difficulties in students, frequently perceived as outside the realm of a classroom teachers' expertise and or control. Unfortunately, these practices did not allow participants to adjust their perceptions related to helping students think critically; motivate students with low interest in schoolwork; help students value learning; control disruptive behavior in the classroom; respond to defiant students; nor get students to follow classroom rules. Not only were results not significant, but also their effect sizes were much smaller than from the Instructional Strategies scale. These outcomes may be useful in planning for self-efficacy and mindfulness studies in the future. That is, if researchers can leverage educators' confidence in their academic instructional skills set, then future studies may lend themselves to helping educators apply that knowledge to other aspects of education such as classroom management and student engagement.

Twenty-nine pairs of pre- and post-assessment surveys were analyzed for the Yale School Climate Survey, Revised Edition, School Staff Version (Emmons et al., 2002) via nine Repeated Measures ANOVAs. The School, Parent, Community Relations scale

revealed that participants' perspectives changed over the course of the four mindfulness trainings. That is, they felt that during the learning of and participation in mindfulness instruction and activities, their views of support and involvement from parents and other community stakeholders in the life of the school improved over time. In addition, the small effect size is suggestive of a true, positive, and significant difference between the groups from pre-assessment to post-assessment. The researcher hypothesizes that participants feel as though they have improved relationships with the parents of their students, that they attend community events and are generally supportive of school activities based on the results of mindfulness activities.

Alternatively, the other eight scales of Achievement Motivation, Collaborative Decision Making, Equity and Fairness, Leadership, Order and Discipline, School Building, Staff Dedication to Student Learning and Staff Expectations did not reveal significant changes over time. In addition, their effect sizes were much smaller than the School, Parent and Community Relations scale. These results mean that, in general, participants did not feel as though mindfulness trainings had an impact on their perspectives related to a variety of school climate topics such as student willingness to learn; collaborative decision making with administrators and parents; equity of treatment of students regardless of ethnicity or gender; administrator leadership in creating a positive school climate; appropriateness of student behavior; appearance of the physical school building; effort of getting students to learn; nor expecting that students will do well academically. These results may be due to a variety of factors, including that participants feel as though these are concepts outside of their individual control, that

these expectations are already in place and therefore do not need to be altered, or that mindfulness strategies are not related to these school climate factors.

Again, these results may be useful in planning for school climate and mindfulness studies in the future. That is, if researchers can leverage educators' ability to build relationships with students, parents and the community via mindfulness practices, then future studies may lend themselves to helping educators apply that knowledge to other aspects of school climate.

Limitations

There are limitations related to the participants that need to be acknowledged. First, the small sample size hindered the ability of the researcher to detect significant effects related to changes in perceived self-efficacy and school climate. Moreover, because there were a small percentage of participants in each large, urban school, individual perceptions may not have changed as a result of the lack of whole school buy-in and support. That is, participants may have potentially changed their views of teaching on an individual level, but may continue to view the larger school climate as difficult to change as a single person or a small group of people. Additionally, due to the relative homogeneity of the sample, it would be inappropriate to generalize these results to male educators and educators of color. Moreover, most participants were classroom teachers and a larger cross-section of educators may indicate a more diverse perspective related to self-efficacy and school climate. The potential exists that there is something fundamentally different about individuals who chose to participate compared to individuals that did not participate. Lastly, no control group was utilized to determine if there were differences between different groups of participants.

Another limitation for the study is related to the timing of the trainings. The researcher conducted the trainings at various times during the school year, ranging from September 2017 – February 2018 which may impact educators' viewpoints on their ability to implement strategies at the beginning of the school year compared to the middle of the school year. Relatedly, the amount of trainings could also be a limitation. Based on the results, it appears that potentially more trainings could be useful for educators as well as the possibility of follow-up, monthly "booster" sessions in order to maintain and generalize information throughout the school year. Moreover, the evaluator did not schedule meetings with the participants to respond to individual questions nor did she conduct observations related to implementation of skills. In the future, it might be useful to complete standardized observations and/or conduct semi-structured interviews for qualitative information. The researcher could have also assessed the frequency with which activities were utilized in the classroom to determine if a certain number of activities or specific type of activity were more beneficial than others in aiding in individual stress reduction, perception of school climate or outcomes for students.

Certain limitations related to data are also relevant. First, the researcher relied on two self-report measures, which may indicate more socially desirable outcomes than what the respondents truly feel. Relatedly, neither long-term follow-up assessments nor summative assessments were collected and analyzed, which may be useful in determining both short and long-term effects. Moreover, there were six individuals that did not complete the post-assessments, which could have provided more useful data. Finally, there was no control group to compare differences between different sets of individuals.

Implications and Future Directions

Given the aforementioned limitations, several implications for future research exist as they relate to educator preparation programs, school psychology research and school psychology practice.

Educator preparation programs. Although this was a pilot study, the results indicate that a mindfulness program may reduce educator stress and anxiety. Therefore, if educator preparation programs focused on stress reduction techniques consistently throughout undergraduate, graduate and/or alternative certification programs, educators might feel more prepared to handle frustrations and think more flexibility, be better able to manage their classrooms and other job duties, connect with students and colleagues, and decrease feelings of burnout in the early stages of their careers. In addition, it could be hypothesized that if these techniques were explicitly taught to the educators upon entering the workforce, it would lead to effective practice from the beginning of the person's career. Moreover, if educators enter the work force with knowledge and consistent utilization of stress reduction strategies, it will be more cost effective for districts as it relates to decreases in health care insurance costs, absenteeism and turnover. Finally, if administrators supported mindfulness training in schools, school staff may have more buy-in in the collective mission, vision and direction of the school, which would lead to improved perceptions of school climate, increased participation in school activities and a consistent dialogue between leadership, school staff, parents, students and community stakeholders.

School psychology research. In terms of school psychology research, assessing other types of outcomes related to mindfulness in the classroom could be useful in further

understanding the relationship between educator self-efficacy, school climate and burnout. Evaluating concepts such as decision-making, cognitive flexibility, reflection, perspective taking, job satisfaction, and self-compassion may be useful in knowing why educators remain in or leave the field. This research could be conducted in many ways, including gathering data directly via pre-assessment and post-assessment surveys, summative evaluations at the end of each training and interactive focus groups. In addition, data could also be collected via third party observation and individual qualitative interviews with teachers regarding changes in perceptions of the aforementioned concepts. Gathering qualitative feedback in a systematic way may provide a level of humanistic insight to the researchers as to the usefulness and limitations of mindfulness training programs for educators.

In addition, similar to Bradley et al.'s (2018) research, it may also be beneficial to assess the combination and interaction of teacher and student outcomes together such that perspectives from both types of participants could be integrated and utilized for future research and practice. For instance, mindfulness strategies did not have a significant impact on several domains of teacher self-efficacy and perceptions of school climate. It is possible that students may have some insight into the reasons for these outcomes and be able to provide useful feedback to improve behavioral engagement, relationships with adults in the building, collaborative decision making and discipline practices. Given the unique ability of school psychologists to bridge the relationship between teachers and students, research that assesses both sets of outcomes may shed light on how to incorporate mindfulness trainings to benefit the classroom, school and/or district as a whole.

School psychology practice. The translation from research to practice is integral in supporting why mindfulness strategies are useful in reducing feelings of burnout while supporting positive teaching self-efficacy and perceptions of school climate. School psychologists have a unique ability to integrate knowledge about many topics that support both adult educator outcomes as well as students' results. Their training combines a thorough understanding of lifespan development, academic skills and interventions coupled with social/emotional and behavioral strategies within the context of an ecological model of growth and development.

Therefore, school psychologists can be the leaders in bringing mindfulness strategies and stress reduction techniques to many levels of schools, districts and the larger community. With the ever-changing role of a school psychologist, recent history has lent itself to the transformative position of consulting in the school setting and operating from a public health model, which is multilayered, preventative and risk reductive, often attempting to facilitate primary prevention as well as early intervention (Meyers, Meyers, & Grogg, 2004). Therefore, the school psychologist is in a distinct position to facilitate the transfer of mindfulness information at many different levels of a school community.

For instance, at a universal level, trainings such as these could be provided at New Educator Networks in which newly on-boarded district employees would receive an overview of mindfulness strategies at the beginning of their first school year. In addition, separate classes and/or booster sessions could be offered to educators for professional development units in order to receive credit towards their professional license and/or district provided incentives. At a more targeted level, school psychologists could also

offer quarterly mindfulness trainings to their colleagues during staff meetings or pre-determined Professional Learning Community time as well as conduct in-services for parents in how to help manage their own stress as well as providing techniques to teach to their own children. Moreover, through a co-planning and co-teaching model, mindfulness techniques can be presented with general education teachers for preventative purposes. Finally, school psychologists could deliver direct instruction related to mindfulness in small groups or individually for those students who have perceived or identified needs in anxiety, depression, anger management, trauma, friendship concerns and/or suicidality.

Conclusion

In conclusion, mindfulness techniques are a helpful way to learn to how to be a more effective educator by reducing individual stress and feelings of burnout; improving self-efficacy in instruction, classroom management and student engagement; as well as thinking more flexibility about school climate from a universal level. It is evident that this research provided some information to school staff members to aid in their ability to participate in conscious awareness activities in order to reduce stressors, particularly as it relates to efficacy in instructional strategies. Moreover, mindfulness activities provided assistance in identifying how school staff can facilitate relationship building with parents and community stakeholders. Because of these outcomes, it's important to realize how integral school psychologists are in the bridging of the fields of psychology and education. School psychologists have a unique ability to work with adults and students when managing these feelings at many levels including working with new educators, seasoned administrators, parents, students and other community members. This research

is promising in providing a pathway to better understanding the direct impacts and relationships between self-efficacy, school climate, burnout and mindfulness.

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TABLES

Table 1: *Pre-Post ANOVA of the Teacher's Sense of Efficacy Scale--Long Form*

Subscale	Pre *M* *(SD)*	Post *M* *(SD)*	*F*	df1	df2	*p*	η^2	power
S.E.[a]	6.91 (1.09)	7.22 (.80)	3.05	1	28	ns	.10	.39
I.S.[b]	7.31 (.75)	7.59 (.74)	4.56	1	27	.04	.14	.54
C.M.[c]	7.06 (1.23)	7.20 (1.05)	.75	1	28	ns	.03	.13

Note. ns = not significant.
[a]Student Engagement. [b]Instructional Strategies. [c]Classroom Management.

Table 2: *Pre-Post ANOVA of the Yale School Climate Survey, School Staff Version, Revised Edition.*

Subscale	Pre *M* *(SD)*	Post *M* *(SD)*	*F*	df1	df2	*p*	$\eta 2$	power
Ach Mot[a]	4.19 (.38)	4.26 (.37)	1.92	1	28	ns	.06	.27
CDM[b]	3.54 (.58)	3.64 (.68)	.71	1	27	ns	.03	.13
EF[c]	4.11 (.70)	4.20 (.61)	1.07	1	27	ns	.05	.17
Leader[d]	3.88 (.71)	3.81 (.62)	.68	1	28	ns	.02	.13
OrdDis[e]	3.80 (.46)	3.87 (.42)	2.83	1	25	ns	.10	.37
SchBuild[f]	4.44 (.39)	4.45 (.38)	.33	1	28	ns	.02	.10
SPC Relations[g]	3.66 (.71)	3.82 (.72)	4.68	1	28	.04	.14	.55
Staff Ded[h]	4.41 (.44)	4.47 (.39)	.73	1	28	ns	.03	.13
Staff Exp[i]	4.45 (.58)	4.43 (.50)	.09	1	28	ns	.00	.06

Note. ns = not significant.
[a]Achievement Motivation. [b]Collaborative Decision Making. [c]Equity and Fairness. [d]Leadership. [e]Order and Discipline. [f]School Building. [g]School, Parent and Community Relations. [h]Staff Dedication to Student Learning. [i]Staff Expectations.

APPENDICES

Appendix A: Recruitment Email to Denver Public Schools Administrators

Dear (Insert principal/assistant principal/SpEd Program Manager's name),

Hello! My name is Sarah Killion and I obtained your contact information from the Denver Public Schools website. I have been in the field of school psychology for eight years and I am working on completing my doctoral degree at the University of Denver. For my dissertation, I am assessing the impact of mindfulness training for school personnel on perceptions of efficacy and school climate. Your ***certified Denver Public Schools personnel (e.g. school administrators, teachers, interventionists, school psychologists, social workers, school counselors, speech/language pathologists, occupational therapists or physical therapists)*** are eligible to be participants in this study.

If your school personnel decide to participate in this study, your school will receive four, 45 – 60 minute training sessions related to mindfulness. The format of the trainings includes large group discussion, small group activities and independent practice. Teachers who attend all four sessions will be entered into a drawing to receive a $50 Amazon gift card.

This training is completely voluntary and only individuals that would like to participate are encouraged to do so. I am willing to come and speak with you to discuss days of the week, times of the week and locations for possible training at a time that is convenient for you. An overview of each session can also be provided at your request.

Please let me know if you would like to make this opportunity available to your faculty and staff. If you have any questions, please feel free to contact me.

I look forward to hearing from you!

Thank you,

Sarah K. Killion, Ed.S., N.C.S.P.
Ph.D. Candidate
School Psychologist
Denver Public Schools
Phone: 216.798.1679
Email: SarahKKillion@gmail.com

Dissertation Chairperson:
Tara Raines, Ph.D., N.C.S.P.
Assistant Professor
Child, Family and School Psychology Program

University of Denver
1999 E. Evans Ave. #260
Denver, CO 80208
Phone: 303.871.7015
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Appendix B: Recruitment Flyer

University of Denver

Morgridge College of Education

Child, Family and School Psychology Program

is conducting a research study on:

The Intersection of Mindfulness, Teacher Efficacy and School Climate

in Denver Public Schools

If you are ***certified Denver Public Schools personnel (school administrator, teacher, interventionist, school psychologist, social worker, school counselor, speech/language pathologist, occupational therapist or physical therapist)***
and are interested in participating in trainings related to mindfulness over the course of four 45 – 60 minutes sessions

Participation includes completion of two pre-assessment surveys and two post-assessment surveys as well as mindfulness information dissemination, large group discussion, small group activities and independent practice

Participants may be entered into a raffle for one of three $50 Amazon gift cards

For more information, please contact:

Sarah K. Killion, Ed.S., N.C.S.P.
Phone: 216.798.1679
Email: SarahKKillion@gmail.com

Appendix C: Consent Form

DU IRB Exemption Granted: January 26, 2017 **Valid Through: January 25, 2020**

University of Denver
Consent Form for Participation in Research

Title of Research Study: The Intersection of Mindfulness, Teacher Efficacy and School Climate: A Pilot Study

Researchers: Sarah K. Killion, Ed.S., N.C.S.P., Doctoral Candidate
Tara C. Raines, Ph.D., N.C.S.P. - Advisor

Study Site: Denver Public Schools

Purpose
You are being asked to participate in a research study. The purpose of this research is to measure the impact of mindfulness trainings on teacher self-efficacy and perceptions of school climate. This study will fulfill the requirements of a doctoral dissertation in Child, Family, and School Psychology program in the Morgridge College of Education at the University of Denver.

Procedures
If you participate in this research study, you will be invited to engage in four, 45-60 minute trainings related to mindfulness. Participation includes completion of two pre-assessment surveys and two post-assessment surveys that evaluate an individual's perspective on teacher self-efficacy and school climate. Trainings include large group discussion, small group activities and independent practice during the training time period.

Voluntary Participation
Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to attend sessions, complete surveys or participate in mindfulness activities for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts
Potential risks and/or discomforts of participation should not be more than a typical day of life. However, you may experience some emotional discomfort when answering questions related thoughts, feelings, and behavior. Information gathered will be held confidential and used for research purposes only. You have the right to choose not to answer any questions or participate in discussions or activities that make you feel uncomfortable.

Benefits
Possible benefits of participation include learning helpful ways to manage stress through basic mindfulness information. Additionally, this study will inform research on mindfulness tools for teachers and will benefit other school personnel in the future.

Incentives to participate
Individuals that attend all sessions will be entered into a raffle for a $50 Amazon gift card to be raffled at the end of the study.

Study Costs
There is no cost for participation in this study.

Confidentiality
All data collected will be de-identified and given a unique identifying number. The researcher will maintain confidentiality, keeping your information private throughout this study. No individual information will be included when study findings are presented or published.

The research records are held by researchers at an academic institution; therefore, may be seen by researchers. The records may also be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants.

Questions
If you have any questions about this project or your participation, please feel free to contact the following individuals me, Sarah K. Killion at SarahKKillion@gmail.com or 216.798.1679. If you have questions for my advisor, you may contact Dr. Tara C. Raines at Tara.Raines@du.edu or 303.871.7015.

If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

_____	_____
Participant Signature	**Date**

DU IRBNet ID #997005, Version: 01/08/2017
Version Approved: 01/26/2017; Valid for use through: 01/25/2020

Appendix D: Denver Public Schools Executive Summary

The Intersection of Mindfulness, Teacher Efficacy and School Climate:
A Pilot Study

Executive Summary

Burnout, teaching self-efficacy and perceptions of school climate are hot topics in the field of education. Daily stressors such as large class sizes, student academic and behavioral concerns, lengthy statewide tests and stressful annual evaluations, build throughout the school year. These constant pressures create feelings known as burnout, and range from individual emotional exhaustion and work overload, to interpersonal concerns such as detachment from teammates, as well as a decline in feelings of professional competence and productivity. The alarmingly high rate of educator turnover illustrates a critical juncture in education. Therefore, interventions are required to improve an educator's ability to manage student behaviors, provide quality instruction, keep students engaged, and maintain an atmosphere of collegiality and professionalism amongst school staff.

Mindfulness is a concept that is best understood as moment-to-moment, non-judgmental awareness. It is cultivated through the practice of meditation and other calming, conscious activities. These types of interventions are rapidly increasing in schools all over the world in order to improve both student and educator outcomes. This study seeks to identify how mindfulness trainings improve teaching self-efficacy and perceptions of school climate during four weeks of training using a modified version of the MindUP curriculum. Each training will include a combination of direct instruction, small group activities and independent practice over the course of 45 – 60 minutes. A convenience sample of certified staff from a large urban district in Colorado will be participants in the study. The researcher hypothesizes that an individual will change his or her perceptions of teaching self-efficacy and school climate using results from the Teacher Self-Efficacy Scale and the Yale School Climate Survey, Revised Edition, School Staff Version. Data will be collected until a minimum of 64 certified staff has completed the pair of pre- and post-assessments.

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Dissertation Chairperson:
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Appendix E: Denver Public Schools Time Requirement Form

Time Requirement Form
For Primary Data Collection Only

Complete the following chart for all participant categories. The first row provides an example.

Participant Category	**Number of participants**	**Activity**	**Total time required for each participant**
Students	***20***	*Fill out online survey*	*15 minutes*
Certified Staff	64+	Complete two pre-assessments	10 – 15 minutes
Certified Staff	64+	Listen information related to mindfulness	20 minutes/session
Certified Staff	64+	Participate in large group activity	5 – 10 minutes
Certified Staff	64+	Participate in small group activity or independent practice	10 – 15 minutes
Certified Staff	64+	Complete two post-assessments	10 – 15 minutes

Appendix F: Denver Public Schools Principal Consent Form

Principal Consent Form

I. Research Background (to be completed by researcher)

Title of the Study: The Intersection of Mindfulness, Teacher Efficacy and School Climate: A Pilot Study

Name of Researcher: Sarah K. Killion, Ed.S., NCSP Phone: 216.798.1679

Street address:1050 Logan Street #B City: Denver State: CO Zip: 80203

E-mail: SarahKKillion@gmail.com

II. Description of Research Proposal

Researcher is to provide the principal with a copy of the executive summary and the time requirement form.

III. Agreement (to be completed by principal)

I, _____, principal of _____school, understand

- the study and what it requires of the staff, students, and/or parents in my school,
- that the privacy and confidentiality of any staff or student will be protected,
- that I have the right to allow or reject this research study to take place at my school,
- that I have the right to terminate the research study at any time,
- that I have the right to review all consent forms and research documents at any time during the study and up to three years after the completion of the study.

☐ I grant permission to the researcher to conduct the above named research in my school as described in the proposal.

☐ I DO NOT grant permission to the researcher to conduct the above named research in my school as described in the proposal.

☐ I understand that data should be released only by the departments that own them. My staff and I shall not release data to the researcher without approval from the district's Research Review Board.

_____

Signature of Principal

Appendix G: Teacher's Sense of Efficacy Scale, Long Form

Scale and Item Numbers

Efficacy in Student Engagement: 1, 2, 4, 6, 9, 12, 14, 22
1: How much can you do to get through to the most difficult students?
2: How much can you do to help your students think critically?
4: How much can you do to motivate students who show low interest in school work?
6: How much can you do to get students to believe they can do well in school work?
9: How much can you do to help your students value learning?
12: How much can you do to foster student creativity?
14: How much can you do to improve the understanding of a student who is failing?
22: How much can you assist families in helping their children do well in school?

Efficacy in Instructional Strategies: 7, 10, 11, 17, 18, 20, 23, 24
7: How well can you respond to difficult questions from your students?
10: How much can you gauge student comprehension of what you have taught?
11: To what extent can you craft good questions for your students?
17: How much can you do to adjust your lessons to the proper level for individual students?
18: How much can you use a variety of assessment strategies?
20: To what extent can you provide an alternative explanation or example when students are confused?
23: How well can you implement alternative strategies in your classroom?
24: How well can you provide appropriate challenges for very capable students?

Efficacy in Classroom Management: 3, 5, 8, 13, 15, 16, 19, 21
3: How much can you do to control disruptive behavior in the classroom?
5: To what extent can you make your expectations clear about student behavior?
8: How well can you establish routines to keep activities running smoothly?
13: How much can you do to get children to follow classroom rules?
15: How much can you do to calm a student who is disruptive of noisy?
16: How well can you establish a classroom management system with each group of students?
19: How well can you keep a few problem students from ruining an entire lesson?
21: How well can you respond to defiant students?

Appendix H: Yale School Climate Survey, School Staff Version (Revised Ed.)

Scale Definitions and Item Numbers

Achievement Motivation: The extent to which students at the school believe that they can learn and are willing to learn
Items: 2, 17, 30, 39, 44
2: Students at this school are unwilling to learn
17: Our students are willing and eager to learn
30: Students at this school do not care about learning
39: Students here are caring people
44: At this school, students help one another

Collaborative Decision Making: The involvement of parents, students and staff in decisions affecting the school.
Items: 7, 22, 24, 40, 46
7:Non-teaching staff are given opportunities to express their views on important matters
22: Parents are given opportunities to express their views on important matters
24: Non-teaching staff are asked to help with decisions on school matters
40: Teachers are given opportunities to express their views on important matters
46: Professional non-teaching staff play an active role in decision-making groups

Equity and Fairness: The equal treatment of students regardless of ethnicity or gender.
Items: 10, 19, 25, 35, 45
10: Students are treated the same regardless of race
19: Students are treated the same regardless of social class
25: Male and female students seem to benefit equally well from instruction
35: Students, regardless of race, seem to benefit equally well from instruction
45: male and female students are treated equally well

Leadership: The principal's role in guiding the direction of the school and in creating a positive climate.
Items: 1, 6, 14, 28, 33, 34, 38
1: The principal sets the direction for this school
6: It is clear that the principal facilitates and guides the management process in the school
14: The principal has little contact with the teachers
28: The principal is a problem-solver
33: The principal is an instructional leader in the school
34: The principal provides constructive feedback to teachers about their performance
38: Administrators here respect the teachers

Order and Discipline: Appropriateness of student behavior in the school setting.
Items: 3, 5, 9, 11, 29, 31, 37, 49, 54
3: Students here fight a lot
5: Students at this school have good self-control
9: Teachers re often disrespected by students
11: The behavior of children at this school is good
29: It is easy to guide the behavior of the students at this school
31: Rules are frequently broken by students
37: Students are order
49: Rules are obeyed by students
54: There is good discipline at this school

School Building: The appearance of the school building.
Items: 8, 12, 18, 42, 47
8: The walls of this school are usually in good condition
12: This school is usually clean and tidy
18: Generally this school is well maintained
42: The school has a bright and pleasant appearance
47: There are often broken windows or doors in this school

School, Parent, Community Relations: The support and involvement of parents and the community in the life of the school.
Items: 4, 16, 27, 43, 48, 52, 53
4: Parents rarely attend school activities
16: There is good community involvement in the life of the school
27: Parents visit the school on a regular basis
43: Parents attend Parent-Teacher Association meetings
48: At this school, parents frequently volunteer to help on special projects
52: Community members are unsupportive of school activities
53: Members of the community work closely with school staff to improve the school

Staff Dedication to Student Learning: The effort of teachers to get students to learn.
Items: 13, 23, 41, 50, 51
13: At this school, teachers help students feel good about themselves
23: Teachers at this school generally try to accommodate the different learning styles of the children
41: Teachers at this school are committed to helping students learn
50: At this school, teachers fin ways to motivate their students to learn
51: Teachers at this school try to make school work exciting for students

Staff Expectations: The expectations of staff members that students will do well academically and will lead a successful life.
Item: 15, 20, 21, 26, 32, 36
15: Staff at this school believe that very few of their students will make it to college

20: At this school, staff members agree that there is little hope of a good future for their students
21: Most staff at this school expect many of their students to go on to college
26: Most staff here agree that may students at this school will not complete high school
32: Teachers at this school expect many of their students to pursue some kind of higher education beyond high school
36: Staff at this school see a bright future for their students

Appendix I: Training Cycles Information

School 1, Cycle 1:
Information Sessions: March 1, 6, 9, 2017
Training Dates: September 13, 20, 27 and October 3, 2017, 3:30 – 4:30pm
Total Enrolled: 9 educators
Sessions ranged from 6 – 9 attendees/session
10 completed pre- and post-assessment pairs

School 1, Cycle 2:
Information Session: September 25, 2017
Training Dates: October 9, 16, 23 and 30, 2017, 3:30 – 4:30pm
Total Enrolled: 2 educators
Sessions ranged from 1 – 2 attendees/session
2 completed pre- and post-assessment pairs

School 2:
Information Session: September 7, 2017
Training Dates: September 15, 29 and October 13, 20, 2017, 7:30 – 8:30am
Total Enrolled: 9 (16 total, 7 were paras)
Session ranged from 8 – 16 attendees/session
6 completed pre- and post-assessment pairs
One participant did YSCS, but not TSES (100020738)

School 3:
Information Session: November 17, 2017
Training Dates: January 11, 12, 19, 26, and February 2, 2018, 7:45 – 8:45am
Total Enrolled: 11 educators
Sessions ranged from 2 – 9 attendees/session
8 completed pre- and post-assessment pairs

School 4 and 5 (completed at School 4) :
Information Session: January 11, 2018
Training Dates: January 18, 25 and February 1, 8, 2018, 4:15 – 5:15pm
Total Enrolled: 4 educators
Sessions ranged from 2 – 4 attendees/session
4 completed pre- and post-assessment pairs

Appendix J: Training Session Outlines

Training 1:

- Introduction, background, purpose of trainings
- Goal: Introduce brain physiology, the concept of mindful attention and establish daily core breathing practices
- Topics:
    - Informed Consent
    - Take two pre-assessments
    - Learn three major parts of brain and how they interact
    - Identify mindful/unmindful practices
    - Learn core breathing practices

Training 2:

- Review
    - Limbic System's 3 structures
    - Mindful Awareness: considerate, nonjudgmental thinking
    - Core Breathing: Pause, Listen, Breathe
- Goal: Experience the relationship between our senses, moving bodies and the way we think
- Topics:
    - Learn the RAS
    - Understand the impact of hearing, vision, smelling, tasting and movement on our brain

Training 3:

- Review:
    - Limbic System 3 Structures
    - Mindfulness: considerate, nonjudgmental thinking
    - Core breathing: Pause, Listen, Breathe
    - Reticular Activation System
    - Nerve Cells and Neurotransmitters
- Goal: Understanding the role of our mind-set in how we learn and progress
- Topics:
    - Understanding perspective taking
    - Identifying optimism and pessimism
    - Happy memories

Training 4:

- Review
    - Limbic system, mindfulness definition, core breathing
    - RAS, nerve cells, neurotransmitters
    - Optimism benefits
- Goal: Applying mindful behaviors to our interactions with the community and the world
- Topics:
    - Understanding ANS/Fight-Flight-Freeze
    - Gratitude
    - Two post-assessments