The Effects of Mindfulness Training on Teacher Perception of Stress and Teacher Self-Efficacy

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Abstract

Stress is a problem that affects teacher well-being; causes poor performance, teacher turnover, financial and organizational strain; and negatively impacts student outcomes (Greenberg, Brown, & Abenavoli, 2016). Addressing teacher stress is a significant challenge for school leaders with limited resources. Additionally, supporting teacher self-efficacy is an ongoing aspiration as it affects teachers, students, and organizational effectiveness. Furthermore, mindfulness has shown to be an effective means to reduce teacher stress and promote overall well-being by cultivating present moment awareness, emotional regulation, equanimity, and compassion (Abenavoli, Jennings, Greenberg, Harris, & Katz, 2013; Flook Goldberg, Pinger, Bonus, & Davidson, 2013; Jennings et al., 2017; Meiklejohn et al., 2012; Poulin, Mackenzie, Soloway, Karaylos, 2008; Roeser et al., 2013).

The purpose of the study was to examine the differences in teachers' perception of stress, teacher self-efficacy, and mindfulness after mindfulness training. Thirty teachers in an urban school district, 16 at a high school and 14 at two middle schools, volunteered for the 8-week, 30-minutes per week mindfulness training. In this quasi-experimental study, teachers' perception of stress, teacher self-efficacy, and mindfulness were measured three times: before, immediately following, and three weeks after mindfulness training.

Results indicated a significant reduction in teachers' perceptions of stress after mindfulness training, and the reduction maintained for the three-week period following training. No significant differences in teachers' sense of teacher self-efficacy were found; however, results indicated teachers' mindfulness increased significantly after

mindfulness training. Notably, data analysis also indicated significant increases in teachers' mindfulness from the end of training to three weeks after mindfulness training.

The positive results from this study were encouraging as the four-hour mindfulness training might be efficacious in reducing teachers' perception of stress and increasing mindfulness. The positive effects gleaned from training were durable as the perception of stress maintained, and mindfulness improved over the three weeks following training. A short time-frame mindfulness training might have potential to aid school leaders in addressing problems of teacher stress, which is especially problematic in urban school districts.

Dedication

To my children Jack, Elli, Dan, and Abby, whose patience, support, and love are unwavering, and who have taught me the most important lessons of what is to be human with your determination, resilience, and passion for dreaming big dreams and making them come true. You demonstrate how to live a life centered in love and joy.

"Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our happiness." Viktor E. Frankl

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Chapter One

Introduction

Research since 1980 has shown secular mindfulness training had a significant positive impact in the areas of medicine and mental health (Baer, 2003; Kabat-Zinn, 2013; Siegel, 2010). Additionally, neurological changes to the brain have been documented as a result of mindfulness practice (Davidson, 2012; Siegel, 2007). Companies from diverse industries including Google, Facebook, Twitter, Apple, Aetna, Intel, General Mills, Target, Goldman Sachs, Bank of America, and Green Mountain Coffee Roasters have incorporated mindfulness practices into the workplace to increase employee performance and organizational effectiveness (Chen, 2015; Hyland, Lee, & Mills, 2015; Schaufenbuel, 2015). Furthermore, graduate schools including Harvard Business School, UC Berkley Boalt School of Law, Stern Business School at NYU, and Teachers College at Columbia University offer mindfulness programs to support student success (Hyland et al., 2015; Vergara, 2016). Given the benefits of mindfulness practice in adults, mindfulness training has been implemented specifically in education for both students and teachers. Mindfulness programs have been shown to be effective in enhancing students' self-regulation of emotion and attention as well as prosocial skills (Meiklejohn et al., 2012; Zenner, Herrnleben-Kurz, & Walach, 2014). Research on the use of mindfulness practice with teachers is in infancy stages. Furthermore, there is a lack of research on the effects of mindfulness training on teacher perceptions of stress and self-efficacy, and the length of training necessary to produce positive outcomes.

Background

The setting of this study was a large urban school district in the Midwest, District C. The student population of the district was over 22,000 with over 85% minority students, a combination of African-American, Hispanic, Asian, and Native American students. The state and district websites indicated that over 90% of the students were economically disadvantaged and over 60 languages were spoken throughout the district (Kansas State Department of Education [KSDE], 2016). Furthermore, when compared to the state, approximately twice as many students in District C tested below grade level, and half as many students' test results indicated they were college and career ready (KSDE, 2016). Specifically, on both the Kansas English Language Arts and Mathematics Assessments during the 2015-16 school year, about 50% of the students in all grades in the district scored a level 1, compared to 25% of students in the state. Level 1 students are not performing at grade level (KSDE, 2016). Similarly, high school students in District C scored an average of 16.3 on the ACT, while students in the state scored an average of 21.8. Graduation rates for District C also lagged the state, in 2014 by over 21% and in 2015 by more than 17% (KSDE, 2016).

Additionally, teacher recruitment and retention have been significant challenges for District C. The Human Resources Director for Workplace Development (HR Director) reported the district had a 64% teacher retention rate, with a goal of over 80%, with the first and fifth years identified as the largest turnover risk (personal communication, November 21, 2016). Reasons cited for teachers leaving the district were student behavior, lack of support, and stress as the primary reasons (HR Director, personal communication, November 21, 2016). During the 2016-17 school year, 235

new teachers were hired, and 30 certified teacher positions remained unfilled, of the 1,700 certified teacher positions available, midway through the school year (HR Director, personal communication, November 21, 2016). Secondary positions, especially in math, science, and special education, proved to be the most difficult to fill (District C, 2016a). The HR Director also indicated teacher recruitment by neighboring suburban districts was an issue; she cited more pay, less stress, and more resources as primary drivers for teacher departure (personal communication, November 21, 2016).

In 2015, District C was designated a "Public Innovation School District" as authorized by House Bill 2319, the Kansas State Board of Education, and the Kansas Coalition Board (District C, 2015a). The Innovative Schools designation allowed the district to hire non-licensed professional employees as well as licensed employees outside certification area, if candidates met additional requirements as set by the Board of Education, KSDE, and the Coalition of Innovative Schools District Board (District C 2016a). Under the Innovative Schools designation, the district has employed multiple strategies to recruit teachers including alternate certification, Teaching Fellows' programs, teaching certification waivers, Teach for America, and out-of-state recruiting (District C, 2016b; District C, 2017a). The Teaching Fellows Program garnered 19 teachers for the 2016-2017 school year (District C, 2016a), while the Teach for America Program induction was planned for the 2017-2018 school year. The Teach for America program could "allow the district to have more opportunity to hire qualified individuals for the hard to fill teaching positions in math and science" (District C, 2017a, para. 2). The motion for the Teach for America Professional Services Contract was approved unanimously by the district Board of Education (District C, 2017b).

Efforts in continuing to find innovative ways to recruit and retain teachers have been a priority. The HR Director stated that the district strives "to hold onto these teachers and find ways to support them and keep them" (personal communication, November 21, 2016). One way District C has attempted to address teacher retention was with a quality teacher mentorship and induction program. Other initiatives the district has explored included offering differentiated optional professional learning, some for college credit, ramping up the induction program to a three-year program, emphasizing classroom management, creating opportunities for teachers to connect and feel supported, and addressing the teacher negotiated pay scale (HR Director, personal communication, November 21, 2016). The HR Director addressed some of the concerns of teaching students living in poverty by expressing "we don't realize the magnitude of what our students deal with" and recognized the impact poverty has on both student behavior and teacher stress, which in turn affect teacher recruitment and retention (personal communication, November 21, 2016).

Approximately ten years ago, District C initiated a wellness program. The program has been funded by the district health care provider or broker and implemented by the district wellness coordinator with a purpose of both reducing health insurance costs and addressing "absenteeism and presenteeism" (District C, 2015b, para. 2). The Wellness Coordinator expressed that a "healthier, happier workforce pays off" (personal communication, November 21, 2016). The voluntary wellness program offered support to employees in six areas: nutrition, physical activity, stress, financial well-being, general health, and general well-being (Employee Wellness Coordinator, personal communication, November 21, 2016).

The goals of the wellness program have been identified as outcome-based with targets of reducing the percentage of employees with high-risk markers in the areas of Body Mass Index (BMI), blood pressure, glucose, cholesterol ratio, and tobacco usage (District C, 2014). District C has collected data for the 3,400 employees enrolled in the district insurance plan through participation in health screening and an online health risk assessment. Approximately 70% of district employees completed the health screening and health risk assessment in 2015-2016 due to increasingly rigorous incentives to participate, currently at over $400 per year in a combination of insurance fee upcharge and contribution to flexible spending or health savings account (District C, 2015b). In 2014-2015, prior to incentives, only 40% of the 3,122 employees enrolled in health insurance participated in the health screening (District C, 2015b). District C worked to incentivize the health risk screening to draw employee attention to high-risk markers. High-risk markers for the district had slowly declined but were still concerning. For example, in 2016, 49.3% of employees had over 30 BMI, and another 28.5% between 25 and 30 BMI, for a total of 77.8% of employees who took the health screening had over a 25 BMI (Blue Cross and Blue Shield of Kansas City, 2016). The National Institutes of Health (NIH) has categorized over 30 BMI as obese and 25 to 29.9 BMO as overweight (NIH, 2017). Additionally, 9% of employees who enrolled in district health insurance had high-risk or moderate stress and 55.1% high-risk or moderate risk for high blood pressure (Employee Wellness Coordinator, personal communication, January 17, 2017).

The Wellness Coordinator shared several challenges with the district wellness program. Among the concerns expressed were fears of loss of health insurance, invasion of privacy, and judgment. The Wellness Coordinator indicated ongoing efforts to address

these concerns through communication, relationship, and camaraderie, while acknowledging the overwhelming task given district size in relation to the one-person wellness department (personal communication, November 21, 2016). Additional concerns included a disconnect between the perception of overall health and well-being with actual health and well-being. For example, a significant percentage of district employees have high-risk biomarker targets, while 90% reported they were in excellent, very good, or good health (Employee Wellness Coordinator, personal communication, November 21, 2016). To address the disconnect between actual and perceived wellness, the overall drive has been to shift away from a physical health-related wellness, with less focus on diet, nutrition, and BMI, to an overall well-being focus on mind, body, and spirit (Employee Wellness Coordinator, personal communication, November 21, 2016). The goal of shifting to well-being included changing mindsets and habits with the emphasis on promoting growth and enduring change. One approach initiated to support this goal was to focus on one area each month, for example, November 2016 was nutrition. The target focus for February 2017 was stress, and one of the programs offered was a daily guided meditation for the month. The current study was initiated during February in concert with the district wellness program.

An 8-week mindfulness training course was offered to teachers for 30 minutes each week at three sites in District C, one high school and two middle schools. Each week used an identical curriculum (see Appendix A). Attendance was taken to record teachers who received training each week. If a teacher missed, the researcher reached out to share information about the topic missed. Each week a session summary with practice suggestions and optional resources were shared by email to the group to enhance and

reinforce both practice and understanding. After the training, a Mindfulness Training Session Summary was shared with participants electronically via email (see Appendix B). The Mindfulness Training Session Summary was a compilation of each week's topic summary and included suggested practice and optional resources.

Curriculum for the mindfulness training was adapted using the topic sequence from the Mindful Schools Fundamentals course (Mindful Schools, 2016) to the 8-week, 30-minute session per week training offered during this study (see Appendix A). Week one was an introduction and covered topics of the background of mindfulness, breath, noticing thoughts, and listening. Week two covered information on the body and offered a continued focus on breath, thoughts, and emotions and directed participants to body awareness and introduced a body scan. Weeks three and four focused on emotion and covered topics of noticing emotion and thoughts with nonjudgment, cultivating awareness of the effects of emotion on breath and body, creating space to respond rather than react to situations, and noticing happiness. Week five was dedicated to the development of the heart and covered material related to compassion with self and others, gratitude, kindness, and forgiveness. The sixth week introduced interpersonal mindfulness and emphasized awareness of others and relationships, communication, compassion, open-heartedness, empathy, and kindness. Week seven focused on weaving mindfulness into everyday life, including driving, eating, walking, sleeping, mindfulness at work, or any daily activity. The final week, week eight, provided time to look back and forward; therefore, this session was both a review of breath, thoughts, body, emotion, development of the heart, and interpersonal, and everyday mindfulness. A document,

Mindfulness Training: Looking Back and Moving Forward, was shared with participants both electronically and hard copy at the last session (see Appendix C).

The researcher served as the instructor for the mindfulness training. Collaboration on curriculum and instruction for the training occurred with the researcher and a long-time mindfulness practitioner, who holds a Ph.D. in counseling psychology and has attended multiple mindfulness retreats. The researcher, an Instructional Coach in the district, had practiced formal mindfulness since 2010 and was a certified mindfulness-trained educator through Mindful Schools (see Appendix D).

Statement of the Problem

Teacher stress has been an ongoing problem in education and requires leaders to approach the problem in innovative ways. Teacher stress has been especially challenging in urban schools where teachers in some districts receive a "social priority allowance" sometimes referred to as a stress allowance (Kyriacou, 2001) and urban teacher turnover rate is 50% higher than in affluent schools (Gray & Taie, 2015; Seidel, 2014; Simon & Johnson, 2013). Additionally, the challenges of 21st century students and changing school environments bring forth unique stressors for teachers (Flannery, 2010; Hopgood, 2012).

Teacher self-efficacy has been shown to influence both teacher capacity and student learning (Redmond, 2015; Tschannen-Moran & Woolfolk Hoy, 2001). While attracting noteworthy attention from researchers and policymakers, how to support teacher self-efficacy efficiently has been elusive for school leaders (Tschannen-Moran & Woolfolk Hoy, 2007). School leaders must seek creative ways to support teacher self-efficacy in 21st century schools.

Although mindfulness training shows promise, the implementation of mindfulness with teachers to reduce stress and increase teacher self-efficacy is an area of insufficient research. The studies that have been conducted with teachers show multiple positive effects; however, these studies have required 26-36 hours of mindfulness training over an 8-week period (Benn, Akiva, Arel, & Roeser, 2012; Flook et al., 2013; Roeser et al., 2013). Given high demands on teacher time, mindfulness training programs have been difficult to implement. The current study utilized a shorter mindfulness training with teachers in an urban school district, where little research exists on the impact of mindfulness training on teacher perception of stress and teacher self-efficacy.

Purpose of the Study

The first purpose of this study was to determine the extent to which there was a change in teachers' perceptions of stress after mindfulness training. The second purpose of this study was to determine the extent to which there was a change in teachers' perceptions of teacher self-efficacy after mindfulness training. The final purpose of this study was to determine the extent to which there was a change in teachers' mindfulness after mindfulness training.

Significance of the Study

Results of this study are significant to school districts as teacher stress and self-efficacy impact school district function, and ultimately student learning. School districts have sought ways to minimize teacher stress and maximize teacher efficacy, and the mindfulness training program results might enhance professional learning and teacher support offered in schools. These issues are especially relevant and challenging for urban school districts. Moreover, this study was significant with respect to the time

commitment of mindfulness training. The relatively minimal time commitment of the 8-week 30 minutes per week mindfulness training program is significant as demands on teacher and professional learning time are high. With a shorter time commitment needed for mindfulness training, district leaders may be able to implement mindfulness training to support teachers effectively and efficiently. Finally, results of this study are significant to deepen research and inform educational systems, as teacher stress and self-efficacy are significant issues, and there is a paucity of research on the effects of mindfulness training for teachers.

Delimitations

Lunenburg and Irby (2008) explained delimitations as researcher-imposed limits to the scope and boundaries of the study. The following delimitations were imposed on the study.

1. The setting was an urban district and data may not be generalized to school districts with different demographics.
2. The participants were limited to teachers from one urban district located in Kansas.
3. The survey was administered prior to the beginning of the training, at the end of the training, and three weeks following the training. Results would likely differ with different course length and training time.
4. The study was limited to the curriculum implemented, and another curriculum could have produced different results.

5. The mindfulness training was provided by the researcher, and a mindfulness trainer with different experience and disposition could have provided dissimilar results.
6. Data collection for the study was limited to the research variables of teachers' perception of stress, teacher self-efficacy, and mindfulness.

Assumptions

Lunenburg and Irby (2008) described assumptions as providing operational structure to a study that influence the entire study. This study included the following assumptions.

1. Teachers responded to surveys honestly and accurately.
2. Teachers in the study put forth effort into learning and applying mindfulness practices.
3. Teacher participants had no other mindfulness training during the study.
4. Teachers did not experience atypical stress events during the study timeframe.
5. Data from surveys accurately reflected self-perceptions of the study participants.

Research Questions

Creswell (2014) suggested research questions shape and specify the focus of a study. To that end, the following research questions were explored for the current study.

RQ1. To what extent was there a difference in teachers' perceptions of stress after mindfulness training?

RQ2. To what extent was there a difference in teachers' perceptions of teacher self-efficacy after mindfulness training?

RQ3. To what extent was there a difference in teachers' mindfulness after mindfulness training?

Definition of Terms

Per Lunenburg and Irby (2008), it is important to define key terms central to the study. The following are constitutive definitions which were critical to clarify for the study.

Mindfulness. Mindfulness is most commonly defined as, "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4).

Self-efficacy. Self-efficacy is a perception of personal capabilities to produce an outcome, which influences motivation, initiation, effort, persistence, and coping behaviors for the situation (Bandura, 1977).

Stress. Stress is defined as physical, mental, or emotional strain or tension (American Institute of Stress, 2016).

Teacher self-efficacy. Teacher self-efficacy is the "teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233).

Organization of the Study

Chapter one provides an overview of the study. The background, problem, purpose, and significance have been shared, along with the delimitations, assumptions, research questions, and definition of terms. Chapter two, the review of the literature, delves into research on stress, self-efficacy, and mindfulness as these concepts relate to

teachers in contemporary urban schools. Chapter three presents the methodology utilized in the study, including research design, selection of participants, research questions, measurement related to the perception of stress, teacher self-efficacy, and mindfulness. Additionally, data collection and analysis for the three research questions and study limitations are also provided. Chapter four discloses the results of the study with appropriate descriptive statistics and hypothesis testing. Finally, chapter five provides a summary of the study, the findings related to the literature, and the conclusions of the study.

Chapter Two

Review of the Literature

Per Lunenburg and Irby (2008), the review of the literature is intended to support the rationale for the study. Therefore, for the variables of stress, teacher self-efficacy, and mindfulness, it was necessary to review the literature on these topics. Conceptual background, history, and empirical research of stress, teacher self-efficacy, and mindfulness are presented. Specifically, topics reviewed for stress are stress and the body, stress and health, urban stress, work stress, stress management, teacher stress, causes of teacher stress, effects of teacher stress, and urban teacher stress. Within the topic of teacher self-efficacy, the following are covered: self-efficacy, teacher self-efficacy, empirical research on teacher self-efficacy, and perceptions and coping. Lastly, mindfulness definition and concept, history of mindfulness, mindfulness training, mindfulness empirical research, and mindfulness and teachers are presented.

Stress

While stress is defined as physical, mental, or emotional strain or tension (American Institute of Stress, 2016) and is a normal physical and psychological function, too often, stress interferes with daily life function, which results in feeling overwhelmed or out of control (Center for Disease Control and Prevention, 2015). In 2013, the World Health Organization called stress the "health epidemic of the 21st Century" (Fink, 2016, para. 1) and reported stress costs Americans $300 billion annually (Fink, 2016). Stress has become such a significant health and economic issue that every year since 2007, the American Psychological Association (APA) has conducted a national survey on stress. Stress is a major issue that not only the APA highlighted, but also the Centers for Disease

Control and Prevention (CDC), the NIH, the National Institute of Mental Health (NIMH), the Mayo Clinic, and the United States Department of Health and Human Services (USDHHS). In a 1983 survey, 55% of respondents reported stress on a weekly basis, while in 1996, great stress on a daily basis was reported by 75% of respondents (Rosch, 1997). In 2016, the increasing presence of stress has continued, and APA shared that adult stress continues to increase and "significantly greater percentages report experiencing extreme stress levels. Also, higher proportions of adults report experiencing at least one symptom of stress" (APA, 2016, p. 14). Furthermore, over one-third of respondents reported increased stress levels from last year, while only 16% reported decreased stress (APA, 2016).

Stress and the body. Stress can be beneficial and is described by the NIMH (2016) as the "brain's response to any demand" (para. 2). All animals have a stress response system, which can be life-saving (CDC, 2015) and can be motivating or positive for humans to get away from danger, complete a project, compete in a sports event, or meet a deadline (APA, 2013; NIH, 2014). The APA(2016c) classified three types of stress: acute, episodic acute, and chronic. Acute stress may be positive or negative. The APA (2016c) described acute stress as natural and common, possibly exhilarating, and as a short-term event. Acute stress may be characterized by increased heart rate, gastrointestinal response, or psychological distress. Episodic acute stress is acute stress that occurs on a frequent basis and may reflect a life in chaos or crisis. Characteristics of episodic acute stress may include nervous energy, a short temper, irritability, worry, depression, or tension. Episodic acute stress may result in heart disease, tension headaches, or overeating (APA, 2016c). Chronic stress is described as stress that

"destroys bodies, minds, and lives" (APA, 2013, para. 12). Chronic stress, while the most devastating and likely to lead to serious health problems, can be the hardest to notice (NIMH, 2016). Chronic stress causes a depletion of physical and mental resources and can result in heart attacks, suicide, violence, stroke, cancer, or obesity (APA, 2016c). Analysis of the APA (2016b) stress survey revealed that adults with extreme stress are twice as likely to report poor to fair health. Moreover, over half of diagnosed emotional disorders are a result of untreated chronic stress (Goldberg, 2016).

The Mayo Clinic (2016) explained that stress is the body's reaction to physiological responses. The human body reacts in the same way to predators and other threats to survival as daily stressors, which do not affect safety (APA, 2013; Mayo Clinic, 2016). A stressful event causes chemical hormones to be released by the hypothalamus in the brain (Mayo Clinic, 2016). These hormones affect the nervous system, adrenal glands, and cause the release of adrenaline and cortisol hormones (Mayo Clinic, 2016). The chemical hormones increase breath, pulse, tension in muscles, blood pressure, heart rate, and short-term immunity, in addition to curbing non-essential functions of the digestive, reproductive, and growth systems (Mayo Clinic, 2016; NIMH, 2016). This stress response system is designed for survival and causes the brain to decrease the use of glucose (Mayo Clinic, 2016). During a stress event, both the body and mind function in an altered state and after the threat passes, the stress response system is designed to return to normal (Mayo Clinic, 2016). During this state, the limbic system of the brain ensures the body is in a fight, flight, or freeze mode (Mayo Clinic, 2016).

Although the stress response system is designed to return to a normal state, multiple problems occur when the stress response is too long (NIMH, 2016). A

prolonged stress response can occur from either constant stress from episodic acute or chronic stress, or if the response continues after the stress subsides (APA, 2013; NIMH, 2016). Chronic or episodic acute stress causes a feeling of threat, or memories of stressful events cause the stress response system to stay turned on (Mayo Clinic, 2016). While sudden emotional reaction caused by acute stress may cause a heart attack, arrhythmia, or sudden death (APA, 2013), the body's natural stress response system stuck in a fight, flight or freeze mode has serious health consequences (APA, 2013). In fact, longer stress response system engagement is correlated to more problems for the body and mind (APA, 2013).

Stress and health. Chronic or reoccurring stress causes a considerable number of health problems. Symptoms of stress include physical signs of a headache or back pain, sleep problems, stomach ache, muscle tension, frequent or serious colds, or weight gain or loss (CDC, 2015; USDHHS, 2016). Emotional symptoms include tension, irritability, anger, disbelief or shock, worry, depression, fear, crying, and a lack of concentration, decision-making ability, or interest in activities. Problems caused by stress include heart disease, high blood pressure, diabetes, stroke, depression, obesity, anxiety, eating disorders, headaches, urinary problems, arthritis, digestive problems, weight gain or loss, some cancers, sleeplessness, memory and concentration problems, and a weakened immune system (APA, 2016a; CDC, 2015; Mayo, 2016; NIMH, 2016; USDHHS, 2016). Stress causes disease by direct chemical changes in the body and harmful habits caused by stress, including overeating, smoking, or overuse of alcohol (APA, 2016c). Glaser explained by stating, "when we are stressed, we tend to do the worst things that are not at all helpful to our health" (NIH, 2014, para. 10). The APA (2016b) summed up the

impact of stress by stating “results of the survey draw attention to the serious physical and emotional implications of stress and the inextricable link between mind and body” (p. iii).

Urban stress. Stress is an additional problem in urban areas. The APA’s annual report on stress in 2016 highlighted the connections between discrimination and stress with resulting impacts on employment, relationships, and overall health (APA, 2016b). While the report focused on multiple types of discrimination including race, ethnicity, sexual orientation, disability, gender, and gender identification, the impact of money and work on stress was noted to be consistent year after year (APA, 2016b). Information in the APA (2016b) report noted the correlation between race and socioeconomic status, “a median White household has about 13 times as much wealth as a median Hispanic household and almost 16 times as much wealth as a median Black household” (p. 11). The 2016 APA report on stress also included data that higher percentages of Hispanic, 77%, African-Americans, 78%, and Asians, 70%, feel stressed significantly or somewhat about money than Whites, 62%. Urban stress was highlighted, “adults in urban areas have a significantly higher reported stress level on average than those in suburban and rural settings” (APA, 2016b, p. 12).

Work stress. Behind money, work was noted as the second highest cause of stress by the APA (2016b). The top five stressors also included family responsibilities, personal health, and family health (APA, 2016b). The NIH (2014) also reported that work stress is a consistent top cause of stress in America. Although stress is handled by individuals in very different ways and is reflected by an internal state of mind (APA, 2013; CDC, 2015; Mayo Clinic, 2016; NIH, 2014; NIMH, 2016), stress has been noted to

cause lower employee retention, engagement, mental health, and productivity as well as a contributor to rising health care costs (APA, 2016a; Soleil, 2016). The Occupational Health and Safety European Trade Union Committee for Education (OHS) identified work stress and psychosocial issues as one of three top priorities for the health and safety of workers, along with chemicals and ergonomics (OHS, 2011). Correlations between individual and organizational health and well-being were noted in the report. If individual employees have higher rates of disease, negative psychological states, or other health issues, then the organization will have higher absenteeism and apathy with lower quality work (OHS, 2011).

The European Union has developed a framework directive where it is the "employer's duty to develop" (OHS, 2011, p. 9) a stress prevention policy. Soleil (2016) also stated, for "human health and business productivity, we need businesses throughout the nation to actively support people in their effort to reduce stress and find healthy balance" (para. 8) and further stated "employee health will need to be owned and supported by every executive throughout the business" (para. 9). By reducing employee stress, an employer might be able to realize the economic and social benefits of a workforce who is both well motivated and healthy (OHS, 2011).

Stress management. While 94% of Americans reported they understand that stress causes disease (APA, 2012), the APA also reported in 2016 that "a sizeable portion of adults surveyed do not feel they are doing enough to manage their stress" (p. 14). The APA (2016b) also reported the "connection between psychological and physical health and how lifestyle and behaviors can affect overall health and wellness" (p. iii). The NIH (2014) conveyed that stress management and resilience caused people to "bounce back"

after a stressful event. Stress management suggestions have included setting priorities, organizing time, eating a healthy diet, exercising, volunteering, involvement in hobbies, keeping a sense of humor, engaging in good sleep habits, connecting socially and spending time with family and friends, avoiding alcohol and drugs, counseling, and relaxing (APA, 2016a; CDC, 2015; Mayo Clinic, 2016; NIH, 2014; NIMH, 2016; USDHHS, 2016). Additionally, multiple strategies are recommended to reduce stress including noticing stress, sitting quietly and breathing, taking the time to mentally regroup, meditating, practicing yoga, tai chi, and mindfulness (APA, 2016a; Mayo Clinic, 2016; NIH, 2014; NIMH, 2016; USDHHS, 2016). The USDHHS (2016) reported the benefits of stress reduction to include weight control, improved sleep, fewer illnesses, fewer body aches and problems, and improved relationships and emotional regulation.

Teacher stress. Teaching is America's largest occupation (Ingersoll, Merrill, & Stuckey, 2014; Phillips, 2015) and one of the most stressful (Greenberg et al., 2016). The results of a 2005 survey of 25,000 individuals from 26 organizations on stress, as measured by psychological well-being, physical health, and job satisfaction, found that, in terms of low health and negative well-being, teachers ranked second in both physical health and psychological well-being, in addition to sixth worst job satisfaction (Johnson et al., 2005). The factors of occupation, stressors, support, and coping were measured. The results of the study revealed the combined impact of these factors resulted in individual levels of stress such that not all people with the same job have the same stress (Johnson et al., 2005). However, Johnson et al., (2005) also reported a correlation between high-risk occupations and high stress.

The authors of the report by OHS (2011) expressed, "teachers are among professionals reporting the highest level of work related stress" (p. 3). England's Health and Safety Executive stated that teaching is the highest stress occupation with 80% of teachers reporting stress (Richardson, 2010). Moreover, according to a 2015 survey of more than 30,000 teachers, 73% report, they are often stressed (American Federation of Teachers, 2015). Included in the same report was that 26% of teachers said they had stress, emotional challenges, or depression for more than nine of the last 30 days. Additionally, the APA has a 1.2-hour stress module specifically for teachers on its website.

Ingersoll et al. (2014) conducted an analysis of data from the School and Staffing Survey (SASS) and Teacher Follow Up Survey (TFS). The data from the SASS and TFS was collected from 50,000 teachers and 11,000 schools. In the resulting report, Ingersoll et al. (2014) identified changes in the US teaching force between 1987 and 2012. Trend one of the report was the US teaching force is larger. While several factors contribute to this trend, including special education services and English speakers of other languages, Ingersoll et al. (2014), identified the number one trend of larger schools and stated

> schools have continually been asked to take on more and more goals and tasks that were once the responsibilities of parents, families, and community, and as our school system is continually asked to address larger problems of our society and economy. (p. 6)

Trends two through five identified in the analysis were a teaching force that was grayer (older), greener, more female, and more diverse by race and ethnicity. Trend three, a greener teaching force, was caused by "a dramatic increase in the number of teachers

who are beginners" (Ingersoll et al., 2014, p. 11). A less experienced teaching force, combined with high attrition rates has resulted in 30% of teachers leaving the field after three years and, and up to half after five years (DeAgelis, 2012). Although trend five reflects a more diverse teaching force by race and ethnicity due to increases in minority teachers, rates among minority teachers leaving the teaching field are higher than white teachers. Job satisfaction, a byproduct of stress reduction, has been reported to be the best predictor of teachers staying in the field (Tickle, Chang, & Kim, 2011). Additionally, trends six and seven noted the teaching force had consistent academic ability over time and was less stable due to attrition (Ingersoll et al., 2014).

Pennsylvania State, with support from the Robert Wood Foundation, released a report on teacher stress and health. Greenberg et al. (2016), the authors of the report, stated, the escalating crisis of teacher stress "is affecting students' educational outcomes, impacting teachers' health, and costing U.S. schools billions of dollars each year" (p. 9). Forty-six percent of teachers reported high daily stress; this data rank teaching and nursing as tied for occupations with the highest stress (Greenberg et al., 2016). Furthermore, Greenberg et al. (2016) stated

> Today, teaching is one of the most stressful occupations in the U.S. High levels of teacher stress are affecting teacher health and well-being, causing teacher burnout, lack of engagement, job satisfaction, poor performance, and some of the highest turnover rates ever. Stress not only has negative consequences for teachers, it also results in lower achievement for students and higher costs for schools. … The cost of teacher turnover is estimated to be over $7 billion per year. (p. 2)

Causes of teacher stress. Kyriacou and Sutcliffe (1977) defined teacher stress as "a response by a teacher of negative affect… as a result of demands made upon the teacher in his role as a teacher" (p. 299) and "the degree to which the teacher perceives that he is unable to meet the demands made upon him" (p. 299). Prilleltensky, Neff, and Bessell (2016) described teacher stress as an "imbalance between risk and protective factors" (p. 105). Prilleltensky et al. (2016) conveyed that both risk and protection factors may be personal, interpersonal, or organizational and may help or hinder teacher well-being.

Montgomery and Rupp (2005) in a meta-analysis determined a relationship between stress, external stressors, and coping mechanisms. The authors presented a model of interactions between the external situation, internal emotional response, and social support. Additionally, Montgomery and Rupp (2005) identified a moderate effect size in the relationship between external pressures, for example, student misbehavior and workload, and stress. The researchers also found moderate to highly correlated connections between emotional response and teacher burnout and teacher subjective perceptions of support and teacher stress. Furthermore, Montgomery and Rupp (2005) presented a model where teachers conduct a primary evaluation of a situation, then evaluate their "capacity to confront the situation" (p. 461). Ultimately, both cognitive and personal factors come into play and stress depends on the individual teacher's perception. In fact, teachers' emotional responses, personality, and support are central to response to external stressors (Montgomery & Rupp, 2005). The researchers found "emotions have a central role for understanding the intricate relationship between stress, burnout, personality, and support variables" (Montgomery & Rupp, 2005, p. 485) and

further stated "understanding and uncovering negative emotions related to external stressors is the first step towards a better performance, a higher degree of professional satisfaction, and, consequently, a higher level of teacher retention" (p. 483). Moreover, the authors conveyed, "the most important premise of the model is that a teacher, reacting to outside events is the core agent throughout the entire model" (Montgomery & Rupp, 2005, p. 464).

Lambert, McCarthy, Fitchett, Lineback, and Reiser (2015) evaluated data from the National Schools and Staffing Survey (SASS) to analyze teacher stress. The authors noted that a traditional functional approach to evaluating teacher stress by studying external inputs of class size or administrative climate, related to the output of teacher job satisfaction, does not address the psychological factors of stress (Lambert et al., 2015). Rather, the authors used SASS data with the Classroom Appraisal of Resources and Demands (CARD) model (Lambert, McCarthy, O'Donnell, & Wang, 2009) to evaluate teacher perceptions of demands and resources related to stress in elementary school teachers (Lambert et al., 2015). Teachers were categorized as resourced, where teachers perceived resources to be greater than demands; balanced, where resources equaled demands; or demanded, when teacher perception of demands was greater than resources. The resourced group reported higher job satisfaction and lower stress, while teachers in the demands group reported higher stress and lower job satisfaction (Lambert et al., 2015). The researchers concluded that subjective teacher perceptions of similar circumstances differ and "can help account for why some teachers persevere in the face of high demands" (Lambert et al., 2015, p. 24). Moreover, the authors recommended, "considering how teachers perceive their workplace climate can be a valuable asset for

school and district leaders interested in retention and curtailing mobility" (Lambert et al., 2015, p. 23).

Greenberg et al. (2016) identified four primary sources of stress for teachers. School organizations lacking in strong leadership and a healthy culture of collegiality and support cause stress for teachers. Additionally, job demands related to student behavior, parents, and testing contribute to teacher stress. Furthermore, instructional and other work resources which limit teacher autonomy and teacher social-emotional competence to handle stress and cultivate a healthy classroom were also noted as causes of stress for teachers (Greenberg et al., 2016).

Effect of teacher stress. Teacher stress has been shown to have wide-ranging implications. Teacher stress has manifested in a variety of ways, including behavioral, physical, and psychological. High stress in teachers correlated with high absenteeism, illness, accidents, and anxiety in addition to more negative emotions, lower psychosocial well-being, and lower job satisfaction (OHS, 2011). McCarthy, Lambert, and Reiser (2014) found associations between teacher stress and overall lower health measurements, job satisfaction, and higher attrition. Moreover, (Greenberg et al., 2016) reported stressed teachers had increased depression, poor sleep quality, burnout, student behavior problems, as well as lower work engagement, student engagement, social adjustment, and academic achievement.

Briner and Dewberry (2007) published results of surveying 24,000 staff from 246 primary schools and 182 secondary schools. The survey was a well-being survey and was analyzed with value-added student performance assessments. The authors examined correlations and found a statistically significant correlation between well-being and

value-added student performance (Briner & Dewberry, 2007). This correlation was present only with teacher well-being, not overall school staff. Additionally, correlations were found between well-being, job satisfaction and enjoyment, and student achievement (Briner & Dewberry, 2007). While the authors called attention to correlations, not causality, the results were significant. The researchers summarized "the major implications of these findings are that if we want to improve school performance, we also need to start paying attention to teacher wellbeing" (Briner & Dewberry, 2007, p. 4) and further concluded, "What seems most likely that there is a two-way relationship between teacher wellbeing and pupil performance" (p. 4).

A meta-analysis of 16 studies found "a significant relationship between classroom management, self-efficacy, and the three dimensions of burnout" (Aloe, Amo, & Shanahan, 2014, p. 101). Additionally, Oberle and Schonert-Reichl (2016) found teacher stress correlated to student stress, as measured by the stress hormone cortisol. The same researchers found teacher stress correlated to decreased close relationships with students and decreased ratings of a positive learning environment (Oberle & Schonert-Reichl, 2016). Greenberg et al. (2016) similarly related that teacher stress has an impact on classroom environments, student social adjustment, overall student well-being, and student academic performance.

The cost of teacher turnover impacts schools and communities in multiple ways. Greenberg et al. (2106) reported between 23 and 42% of teachers will leave within five years, causing a negative impact on student performance, school and community stability, and overall school effectiveness. Teacher turnover has a greater impact on low-income schools, in terms of scope of the problem, financial cost, and school performance

(Greenberg et al., 2016). The authors stated, "the impacts of teacher stress are particularly high in disadvantaged schools, making it a fundamental issue for reducing inequity in education" (Greenberg et al., 2016, p. 9).

Urban teacher stress. Urban schools, as characterized by high poverty rates, have been shown to have increased teacher stress and the effects of teacher stress. Ingersoll et al. (2014) related that trend seven, a less stable teaching force due to increased attrition, was not similar in all schools. "Data show that high-poverty, high-minority, urban, and rural schools have among the highest rates of turnover" (Ingersoll et al., 2014, p. 23). Moreover, these schools employ more beginning teachers who have the highest level of turnover, and Ingersoll et al. (2014) reported 25,000 beginning teachers left in 2007-2008 which is four times the attrition rate from 1987-1988. DiCarlo (2015) noted that after increasing for 15 years, teacher turnover has been flat since 2004-2005. This trend was largely attributed to the recession when people were less likely to change professions (DiCarlo, 2015). However, DiCarlo (2015) also noted that teachers left schools with 75-100% free and reduced lunch populations at twice the rate of schools with populations of 0-34% free and reduced lunch. Finally, Lambert et al. (2015) stated that when analyzing data from the SASS aligned to CARD, urban teachers were more likely to be classified in the demands group, where perceptions of demands are greater than available resources. Lambert et al. (2015) reported that SASS survey data showed teachers from the demands group were less likely to become a teacher again or return to school and were more likely to worry about job security. Additionally, demand group teachers reported wasting time, being threatened, having student behavior problems, and having less teacher autonomy (Lambert et al., 2015). The results of the SASS survey

data from 2000 and 2008 showed consistent trends for teachers who were categorized in the demands group (Lambert et al., 2015). Fusco (2017) described the challenges for urban charter school teachers and consequences of high teacher turnover. In fact, Fusco (2017) used the term "dropout factory" to describe urban charter schools (para. 1). Challenges included high demands on teacher time, student behavior, and lack of growth opportunities and benefits, while consequences were student-teacher relationships, student performance, low morale, and costs associated with teacher replacement (Fusco, 2017).

Summary. In general, stress has been shown to have significant negative impact on health, relationships, and overall well-being (APA, 2016a; CDC, 2015; Mayo, 2016; NIMH, 2016; USDHHS, 2016). The European Union (OHS, 2011) described teacher stress as a "multi-causal problem that requires multi-dimensional solutions" (p. 7). Flook et al. (2013) reported that "addressing stress in the classroom remains a significant challenge in education" (p. 182) and noted that "few efforts were being made to address stress and burnout among teachers and boost teachers' well-being" (p. 182). Soleil (2016) related "to combat stress, businesses and schools alike will need to start teaching stress reduction… stress factors of today's work-life will continue to increase" (para. 10). She continued by stating, "the solution is to help American workforce attain a calm state of being and reach *true* work-life balance" (Soleil, 2016, p. 3). Similarly, Prilleltensky et al. (2016) recommended "administration must work to create a climate of emotional and professional support that enables growth" (p. 109) to reduce teacher stress, and Greenberg et al. (2016) proposed "there is a need for greater innovation in developing

and assessing the effectiveness of policies and programs to reduce teacher stress and improve well-being" (p. 9).

Self-Efficacy and Teachers

Self-efficacy has been defined as a perception of personal capabilities to produce an outcome, which influences motivation, initiation, effort, persistence, and coping behaviors for the situation (Bandura, 1977). Unlike self-concept, which has been described as reflecting a general sense of self, self-efficacy varies with task and circumstance (Bandura, 1977). The importance and impact of teacher self-efficacy were initiated with a study where the Los Angeles Unified School District hired the Rand Corporation to examine reading programs being implemented in 20 low-income elementary schools. Each school selected had a reading program, and the school district sought to determine effective program content and implementation, in addition to other school factors including building leadership, culture, teacher attributes, and classroom atmosphere, which influenced student achievement (Armor et al., 1976). The study, which included interviews and surveying of teachers, reading specialists, and principals, occurred over the course of a year. Armor et al. (1976) decided to include two questions on the survey regarding self-efficacy. The researchers found that although teachers matter for student achievement, multiple teacher attributes, including years of experience, ethnicity, or educational background had little or no influence (Armor et al., 1976). However, Armor et al. (1976) found a teachers' "sense of being able to 'get through to students'" (p. 52) had a significant impact. In other words, efficacious teachers made a significant difference. They concluded, "school and classroom decisions matter for the education of the minority students we studied, over and above the importance of student

background characteristics, such as socioeconomic status and prior reading knowledge" (Armor et al., 1976, p. 50). These two events, research on self-efficacy and findings of the importance of teacher efficacy for student achievement, were the foundation, which activated a litany of research on self-efficacy and more specifically, teacher self-efficacy.

Self-efficacy. The self-efficacy concept is a cognitive, behavioral, emotional, and social process that falls under the social cognitive theory (Bandura, 1977, 1994, 1997). Social cognitive theory has been described as a theory founded in how a person's cognition, personality, and emotion, interact and influence with behavior and environment, in the form of reciprocal determinism (Bandura, 1977, 1997; Bandura & Cervone, 1986). As such, people both influence and are influenced by environment and behavior (Bandura, 1997). Social cognitive theory has been conceptualized as the foundation of human agency, the action of making choices, and self-efficacy as a generated capability within the human agency (Bandura, 1997).

Bandura (1997) emphasized that self-efficacy is about perceptions of capacity to complete a task, and is therefore not about skills or personal attributes. The perception of capacity to complete a task effects action. Bandura (1997) expressed "unless people believe they can produce desired effects by their actions, they have little incentive to act" (p. 3). Thus, "self-efficacy beliefs determine how people feel, think, motivate themselves, and behave" (Bandura, 1994, p. 71). In fact, Bandura (1977) learned through his research "self-efficacy predicted subsequent performance as measured at different points in treatment in 92% of total assessment tasks" (p. 211).

The conceptual system was therefore devised where a person's behavior is resultant of efficacy expectations. A person with strong sense of self-efficacy approaches

"difficult tasks as challenges to be mastered rather than threats to be avoided" (Bandura, 1997, p. 35). Conversely, Bandura (1997) found, an individual with a poor sense of self-efficacy and self-perceived capabilities will "avoid transactions with stressful aspects of their environment they perceive as exceeding their ability" (p. 203). Bandura (1993) related that persons with low self-efficacy avoided challenging tasks, set low goals, showed minimal commitment and effort to attain to goals, tended to focus on obstacles, deficiencies, and adverse outcomes, and showed high rates of stress and depression. On the contrary, Bandura (1997) posited that individuals with a high sense of self-efficacy set ambitious goals, tried challenging tasks, demonstrated high commitment and effort to goal attainment, showed high levels of resilience, displayed a growth mindset where through effort, knowledge and skills could be acquired, exhibited a greater sense of personal accomplishment, and had lower levels of stress and depression. Bandura (1994) explained that through the selection process in goal setting, commitment, and choice behavior "people cultivate different competencies, interests, and social networks that determine life courses" (p. 75). The selection processes included cognitive processes of thoughts, organization, task completion, and goal setting, motivation elements connected to beliefs of what can be accomplished, and affective components of mood and self-regulation of thought patterns, all of which are brought about through efficacy beliefs (Bandura, 1994).

Identifying sources of self-efficacy has therefore become important. Bandura (1977, 1994, 1997) recognized four sources of self-efficacy, performance accomplishments, sometimes referred to as mastery experience, vicarious experience, social persuasion, and emotional or physiological arousal. Bandura (1997) determined

mastery experiences as the most meaningful to affect self-efficacy. Mastery experience or performance accomplishments have been described as those where success is attained. Vicarious experiences have been explained as events achieved by a model similar to oneself (Bandura, 1977, 1994, 1997). Social or verbal persuasion has been likened to encouragement by peers, and emotional or physiological arousal as derived from mood, emotion, or mental state (Bandura, 1977, 1994, 1997). Ultimately, self-efficacy mediates knowledge, behavior, and emotion and has been shown to determine the course of action, effort, persistence, resilience, thought patterns, depression, and sense of accomplishment (Bandura, 1993, 1997). Given the cyclical and self-determining nature of high or low self-efficacy, it is not surprising that "a strong sense of efficacy enhances human accomplishment in many ways" (Bandura, 1994, p. 71).

Teacher self-efficacy. As mentioned previously, Armor et al. (1976) introduced two questions connected to efficacy in their study regarding the Los Angeles Unified School District reading programs. The first question connected to what has been called general teaching efficacy (GTE), and the second to personal teaching efficacy (PTE). GTE was connected to outcome expectancy and incorporated external factors of home, social, or socioeconomic factors, and reflected a general belief in the influence of schools, education, or teachers, while PTE reflected the teacher's own sense of competence and ability to influence student outcomes (Gibson & Dembo, 1984; Skaalvik & Skaalvik, 2007; Skaalvik, 2010; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001). Ashton (1984) promoted a conceptualization that GTE and PTE were combined into what was called teaching efficacy, as both concepts contributed to the effectiveness of teaching. However, this was problematic as the items were only

slightly related (Skaalvik & Skaalvik, 2007; Tschannen-Moran et al., 1998). Additionally, PTE, the concept aligned with Bandura's self-efficacy, was termed teacher self-efficacy (Skaalvik & Skaalvik, 2007; Tschannen-Moran et al., 1998). Research by Gibson and Dembo (1984) confirmed that GTE and PTE were separate constructs. Tschannen-Moran et al. (1998), Skaalvik and Skaalvik (2007), and Skaalvik, (2010) validated this research.

Ashton (1984) offered the definition as "teachers' 'sense of self-efficacy' refers to the extent to which teachers believe that they have the capacity to affect student performance" (p. 28), although, the current definition of teacher self-efficacy was formed as, "teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998, p. 233). Comparable to self-efficacy, teacher self-efficacy has been described as not general in nature, but rather specific to a task and reflects the teacher's judgements about his or her capacity to bring about student learning and behavior outcomes (Dicke et al., 2015; Klaasen & Chiu, 2010; Tschannen-Moran et al., 1998, Tschannen-Moran & Woolfolk Hoy, 2001). The judgments could consider prior skills and knowledge, instructional resources, emotional resources, discipline, or other contexts of the situation (Pajares, 1996; Skaalvik & Skaalvik, 2007; Tschannen-Moran et al., 1998). Bandura (1997) asserted a "teacher with a high sense of instructional efficacy operates on the belief that difficult students are teachable through extra effort and appropriate techniques that they can enlist family supports and overcome negating community influences through effective teaching" (p. 240). Moreover, like self-efficacy, teachers with a high sense of teacher self-efficacy "believed they could control, or at least

strongly influence student achievement and motivation" (Woolfolk Hoy & Hoy, 1998, p. 202).

From the onset, teacher self-efficacy has been correlated with student achievement (Armor et al., 1976). Likewise, Gibson and Dembo (1984) found that teachers with high efficacy correlated with positive student achievement. They found high-efficacy teachers spent more time preparing, spent more time giving feedback to students, gave students more encouragement, questioned their students more, and spent more time on instruction and interacting with low expectation students (Gibson & Dembo, 1984). Conversely, teachers with low efficacy demonstrated lower effort and persistence, gave students answers, criticized students for incorrect answers, and "appeared flustered with interruption of routines" (Gibson & Dembo, 1984, p. 578). Tschannen-Moran et al. (1998) confirmed research supported high teacher self-efficacy was correlated with high effort and persistence, enthusiasm, organization and planning, fairness, openness to support, lower student discipline referrals. Thus, teacher self-efficacy belief systems were reflected in an interaction between motivation, quality of instruction, and student learning outcomes (Tschannen-Moran & Woolfolk Hoy, 2001).

Measurement of teacher efficacy has evolved from the original two questions asked in the Rand study, through multiple iterations over a 25-year span between 1976 and 2001. Finding the right balance between specificity and generality, in addition to defining what should be measured was challenging (Ashton, 1984; Gibson & Dembo, 1984; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001). Klassen and Chiu (2010) expressed the 2001 Tschannen-Moran and Woolfolk Hoy scale "adheres

more closely to the theoretical guidelines proposed by Bandura (1997) and reflects capability rather than general ability" (p. 742).

Armor et al. (1976), through the Rand study, were the first researchers to document the importance of teacher self-efficacy for student achievement. They noted, "the most effective teachers had a strong sense of personal efficacy in teaching minority children: they believed they could 'get through' even to children with shaky motivation or home background" (Armor et al., 1976, pp. 37-38). They further clarified no teacher demographic mattered; it was a teacher's "sense of being able to 'get through' to students, their commitment and morale, help to determine how much children learn" (Armor et al., 1976, p. 52). Additionally, Ashton, Webb, and Doda (1983) conducted a study at 48 high schools, and the findings supported the Rand study of a positive correlation between teacher efficacy and student performance. Ashton et al. (1983) stated, "significant relationships among teacher efficacy, student-teacher, interaction, and student achievement were found" (p. 1). Furthermore, Ashton and Webb (1986) conducted a yearlong study and found that teacher self-efficacy predicted student achievement in both language and math. The researchers concluded, "no other characteristic has demonstrated a more consistent relationship with student achievement" (Ashton & Webb, 1986). Bandura (1993) concurred that "no other teacher characteristic has demonstrated such a consistent relationship with student achievement" (p. 28). He found that teacher self-efficacy influenced student self-efficacy, which in turn influenced student performance; this cycle existed positively and negatively (Bandura, 1993). Pajares (1996) confirmed results associating teacher self-efficacy and student

performance and affirmed, “the empirical connection between self-efficacy and academic performance has by now been reasonably secured” (p. 563).

Empirical research on teacher self-efficacy. The empirical evidence relating teacher self-efficacy to student achievement has resulted in significant research to examine further the contextual factors of teacher self-efficacy. Ashton and Webb (1986) described teachers with a high sense of self-efficacy as having “warm inter-personal relationships” (p. 125). In a study of 2,184 teachers in 75 Italian junior high schools conducted by Caprana (2006), the idea of student-teacher relationships was linked to teacher self-efficacy. Caprana (2006) verified that teachers with a high sense of self-efficacy gave students more encouragement. Klaasen and Chiu (2010) documented with research conducted with 1,400 teachers in Canada, a positive relationship between teacher self-efficacy and student motivation, and Skaalvik and Skaalvik (2014) authenticated a positive correlation between teacher self-efficacy and student engagement.

Expanding on relationships, teacher self-efficacy has been studied in connection with collective efficacy. Bandura (1993) described collective efficacy as an atmosphere of development that can help or hinder self-efficacy. Goddard and Goddard (2001) defined collective efficacy as “the perceptions of teachers in a school that the faculty as a whole can organize and execute the courses of action required to have positive effects on students” (p. 809). Tschannen-Moran et al. (1998) noted the influence collective efficacy may have on teachers and shared that a "low sense of efficacy can be contagious among a staff of teachers, creating a self-defeating and demoralizing cycle of failure" (p 222). Moreover, researchers have consistently found positive correlations between teacher self-

efficacy and collective efficacy (Caprana, 2006; Goddard & Goddard 2001; Skaalvik, 2010; Skaalvik & Skaalvik, 2007; Tschannen-Moran, Woolfolk Hoy, 1998).

Additional factors explored by researchers in relation to teacher self-efficacy include building leadership, teacher demographics, resources, and context. Challenges to teacher efficacy suggested in 1986 by Ashton and Webb included lack of administrator support, collegiality, and isolation. Tschannen-Moran and Woolfolk Hoy (2007) found that teacher demographics, gender and race, and context, urban setting, verbal persuasion by parents and the community were unrelated to teacher self-efficacy. Tschannen-Moran and Woolfolk Hoy (2007) also reported that resources and verbal persuasion were only related to new teacher efficacy, not experienced teachers. Furthermore, Tschannen-Moran and Woolfolk Hoy (2007) related that mastery experiences and leadership were positively related to teacher efficacy. A positive relationship between building leadership and teacher efficacy was supported by teacher autonomy, decision-making opportunities, and low student disruption (Tschannen-Moran & Woolfolk Hoy, 2007). Interestingly, verbal persuasion by administrators did not contribute to teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2007).

A considerable amount of research has been conducted on the relationship between teacher self-efficacy and burnout. Burnout, as described by Maslach, Jackson, and Leiter (1997), includes the components of emotional exhaustion, depersonalization, and sense of personal accomplishment. Brown (2012) conducted a meta-analysis on the relationship between teacher self-efficacy and burnout. In eight of the 11 studies included, there were statistically significant negative correlations between the three elements of burnout and teacher efficacy (Brown, 2012). Looked at individually, the

results in 10 of 11 studies showed a negative correlation with personal accomplishment and emotional exhaustion, and 11 of 11 showed a negative correlation with depersonalization (Brown, 2012). Aloe et al. (2014) also conducted a meta-analysis on the relationship between burnout and teacher efficacy where they focused exclusively on the teacher efficacy component of classroom management. They found a strong negative correlation with all three dimensions of burnout, with the strongest relationship with a sense of personal accomplishment (Aloe et al., 2014).

Bandura (1997) identified emotional exhaustion interrelated with low teacher efficacy and few teacher coping mechanisms. In a study involving 610 elementary, middle, and high school teachers, Tsouloupas, Carson, Matthews, Grawitch, and Barber (2010) determined the most important aspect of burnout to be emotional exhaustion, in fact, they cited "emotional exhaustion as the sole predictor of burnout" (p. 174). Skaalvik (2010) reported that time pressure was the strongest predictor of emotional exhaustion. Highlighting the challenges of student misbehavior, quantified that emotional exhaustion was closely tied with emotional behavior, which was in turn, negatively correlated with teacher efficacy (Tsouloupas et al., 2010). Teachers with high efficacy were described as having positive coping mechanisms, including cognitive reappraisal, while teachers with low efficacy lacked these mechanisms, which were interrelated with emotional exhaustion (Tsouloupas et al., 2010). With a sense of urgency, the authors suggested emotional exhaustion was a "significant stressor affecting teacher well-being" (Tsouloupas et al., 2010, p. 183). In their meta-analysis study, Aloe et al. (2014) also found emotional exhaustion to be negatively correlated with the classroom management aspect of teacher self-efficacy. Skaalvik and Skaalvik (2014)

found negative correlations between teacher efficacy and emotional exhaustion, and Dicke et al. (2015) found that reciprocal relationships between teacher efficacy and emotional exhaustion, such that high teacher efficacy was associated with low emotional exhaustion, and low teacher efficacy was associated with high emotional exhaustion. The researchers also conveyed that prior emotional exhaustion predicts teacher efficacy (Dicke et al., 2015).

Stress and its relationship to teacher sense of self-efficacy have been another area to receive substantial attention from researchers. Coladarci (1992) examined job commitment and found teacher efficacy to be the strongest predictor, over student-teacher ratios, gender, and school climate. Negative correlations were found relating teacher efficacy and stress in three substantial studies involving over 2,100 junior high teachers (Caprana et al., 2006), 1,400 teachers (Klaasen & Chiu, 2010), and 660 teachers in 126 schools (Collie, Shapka & Perry, 2012). Furthermore, researchers have verified teacher self-efficacy to be positively related to job satisfaction (Collie et al., 2012; Caprana et al., 2006; Klaasen & Chiu, 2010; Skaalvik & Skaalvik, 2014). Additionally, Collie et al., (2012) extended the relationship between teacher efficacy and stress to teacher well-being and found positive interrelationship.

Perceptions and coping. Teacher perception has been shown to be a cornerstone of teacher self-efficacy. In fact, Bandura (1993) noted the "study findings provide support for the argument that teachers' perceptions are an important consideration in research" (p. 1200). Bandura (1997) explained that mastery experiences, what has been deemed the most important source of self-efficacy, are subject to the individual's perception of success, instead of objective records. Bandura (1997) also recognized the

connections between a person's affective state and his or her perceptions by stating, "affective states can have widely generalized effects on beliefs about personal efficacy in diverse spheres of functioning" (p. 106). Additionally, Tschannen-Moran et al. (1998) emphasized the significance of self-perception rather than actual skills, and explained "this is an important distinction, because people regularly overestimate or underestimate their abilities, and these estimates may have consequences for the courses of action they choose to pursue or the effort they exert in those pursuits" (p. 211). Thus, Tschannen-Moran and Woolfolk Hoy (2007) acknowledged self-efficacy beliefs "become self-fulfilling prophecies, validating beliefs either of capacity or of incapacity" (p. 3), and concluded that a person's mood and emotions influence self-perception.

Social cognitive theory, the theory from which self-efficacy was formed, provides a framework with which thoughts, behavior, and environment all interact with one another (Bandura, 1977). Specifically, Bandura (1997) explained that an individual's thoughts cause brain activity, which then causes action. Accordingly, a person's mind, their thoughts, perceptions, feelings, and psychological state both impact and are impacted by the environment (Bandura, 1997). Stress and emotional exhaustion have been tied to physiological and affective states (Bandura, 1997), which was found to be a significant predictor for teacher migration and attrition (Tsouloupas et al., 2010). Additionally, Bandura (1994) asserted, "once people develop a resilient sense of efficacy, they can withstand difficulties and adversities without adverse effects" (p. 74). Given the psychological state of the person, he or she may interpret events through a negative, emotionally exhausted, or low-efficacious lens, which then in turn negatively impacts

behavior, or a positive or resilient psychological state and high-efficacy state, which results in positive behavior.

Given the importance of teacher perception of self-efficacy, multiple researchers have suggested equipping teachers with resources, which could positively affect their psychological state and perception. Bandura (1994) noted, "there is a growing body of evidence that human accomplishments and positive well-being require an optimistic sense of personal efficacy" (p. 75). Moreover, "rapid cycles of drastic changes require continuous personal and social renewals" (Bandura, 1997, p. vii). Additionally, Caprana et al. (2006) recommended, based on their conclusion that teachers' satisfaction contributed to a positive learning environment, that support be "aimed to promote teachers' well-being at school" (p. 487). Tsouloupas et al. (2010) noted that teachers with high efficacy were successfully using coping mechanisms to mediate the effects of stress to protect themselves from emotional exhaustion and recommended further research to support teacher self-efficacy using emotional regulation strategies. Moreover, Collie et al. (2012) found relationships between teacher self-efficacy and stress with job satisfaction, causing the researchers to recommend further research on teacher social-emotional well-being.

Summary. Bandura (1977) established the concept of self-efficacy, a person's perception of his or her capacity to generate outcomes. Sources of self-efficacy have been identified as affective or physiological, verbal persuasion, mastery experience, or vicarious experience (Bandura, 1977, 1994, 1997). Self-efficacy, because of its impact on goal setting, effort, motivation, persistence, and coping behaviors, has been shown to have a compounding cycle, which becomes self-fulfilling (Bandura, 1977, 1994, 1997).

Similarly, high teacher self-efficacy aligns with high motivation, effort, and persistence, and high student achievement, while conversely, low teacher self-efficacy aligns with low motivation, effort, and persistence, and low student achievement (Tschannen-Moran & Woolfolk Hoy, 2007). Thus, Tschannen-Moran and Woolfolk Hoy (2007) stated, "Teachers' sense of self-efficacy is a little idea with a big impact. Teachers' judgments of their capability to impact student outcomes have been consistently related to teacher behavior, student attitudes, and student achievement" (p. 954). Teacher self-efficacy has been shown to matter not only to students with respect to relationships (Ashton & Webb, 1986; Caprana et al., 2006; Klaasen & Chiu, 2010; Skaalvik & Skaalvik, 2014), but for the effectiveness of the school as a whole, in terms of collective efficacy (Bandura, 1993, 1997; Caprana, 2006; Goddard & Goddard 2001; Skaalvik, 2010; Skaalvik & Skaalvik, 2007; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy 2007), and as a mediator job satisfaction (Collie et al., 2012; Skaalvik & Skaalvik, 2014) and commitment (Coladarci, 1992). Importantly, teacher self-efficacy also matters for the teacher. The interrelationship between teacher self-efficacy and burnout (Aloe, Amo, & Shanahan; 2014, Brown, 2012; Dicke et al., 2015; Skaalvik, 2010; Skaalvik & Skaalvik, 2007), emotional exhaustion (Aloe et al.; 2014; Bandura, 1997; Skaalvik, 2010; Skaalvik & Skaalvik, 2014; Tsouloupas et al., 2010), stress (Caprana et al., 2006; Collie et al., 2012; Klaasen & Chiu, 2010), and well-being (Collie et al., 2012) have been established. Dicke et al. (2015) identified the "role of teacher self-efficacy as a consequence, rather than a predictor of related variables" (p. 69). Finding how to improve teacher sense of self-efficacy has been a goal of researchers, as its impact on students, school communities, and teacher has potential to be significant.

Mindfulness

Mindfulness is a practice of being present in the moment and noticing thoughts and emotions without judgment. The practice can be informal and used throughout daily life, or formal, as demonstrated by sitting, walking, or laying down with the intention of being mindful. Originally formulated in the West as training to reduce stress by Kabat-Zinn in 1979, mindfulness practice and training have shown promise in both reducing stress and increasing overall well-being (Baer, 2003; Brown et al., 2011; Goyal et al., 2014; Khoury, Sharma, Rush, & Fournier, 2015; Praissman, 2008). In fact, Cullen (2011) described mindfulness as "the antidote to the disease of the twenty-first century life and its attendant and ever-increasing pull toward multi-tasking and 24/7 connectivity" (p. 189).

Definition and concept. The definition of mindfulness adopted for this study was constructed by Kabat-Zinn (1994), the founder of Mindful-Based Stress Reduction (MBSR), as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (p. 4). Kabat-Zinn (2003) also described mindfulness as the "awareness that emerges through paying attention on purpose, in the present moment and non-judgmentally to the unfolding of experience moment by moment" (p. 145). He similarly defined mindfulness as "the psychological capacity to stay willfully present with one's experiences, with a non-judgmental or accepting attitude, engendering a warm and friendly openness and curiosity" (Kabat-Zinn, 2005, p. 1). These definitions are analogous to the definition used by Baer (2003), "mindfulness is the nonjudgmental observation of the ongoing stream of internal and external stimuli as they arise" (p. 125).

The various definitions provided in literature have helped to shape the concept of mindfulness, which APA (2016b) described as encompassing intention, attention, and acceptance. The term meditation, as a process and state, originated from the Latin word "meditari" which means "to engage in a contemplation and reflection" (Chiesa & Malinowski, 2011, p. 407). In contemporary practice, mindfulness has also been noted to depict a state, a skill, and a practice (Chiesa & Malinowski, 2011), and has four foundations: mental state, mental contents, feeling tone, and body awareness (Cullen, 2011). Jennings and Greenberg (2009) contrast mindfulness to mindlessness, which they characterized as being on autopilot with little conscious awareness. Mindfulness has also been explained as having two aspects, one of self-regulation of attention, metacognitive awareness, and attention to the present moment, and the second, an orientation of openness to whatever arises with curiosity, acceptance, and non-judgment to thoughts, emotions, images, or sensations (Chiesa & Malinowski, 2011; Davidson & Kaszniak, 2015; Flook et al., 2013; Jennings, Snowberg, Coccia, & Greenberg, 2011). As nonjudgmentalism is central to mindfulness, Baer (2003) clarified the definition of nonjudgment as "the observation of the ongoing stream of internal and external stimuli as they arise" (p. 125) without categorizing as good or bad, important or not, or right or wrong.

Mindfulness has been imparted as a presence of mind and a way of operating as a human with an experience centered on consciousness, attention, and awareness. Kabat-Zinn (2003) expressed mindfulness as a cultivation of aspects of enlightenment, including energy, investigation, rapture, concentration, calm, and equanimity, in addition to realizing freedom from delusion, hatred, and greed. Moreover, mindfulness training can

cause the increased capacity of a participant in the areas of observing, describing, acting with awareness, non-judging, and non-reactivity (Baer et al., 2008). While mindfulness definitions and descriptions have differences, there are commonalities of proffering mindfulness as a mental process of paying attention non-judgmentally in the present moment. Kabat-Zinn (2003) conveyed that mindfulness was an "inherent human capacity" (p. 146), and Rechtschaffen (2014) stated, "the beauty of mindfulness for our modern use is that all we need is our breath, our bodies, our minds, and our hearts" (p. 36). Significantly, mindfulness has a non-harming orientation, akin to the medical Hippocratic Oath, such that mindfulness has been described as bidirectional with ethics (Cullen, 2011; Kabat-Zinn, 2003). An analogy has been put forth that as a tree's existence in a forest stops if it is chopped down, similarly, mindfulness stops if a harming disposition occurs (Cullen, 2011).

History of mindfulness. Brown, Ryan, and Creswell (2007) espoused that mindfulness had roots in Buddhist psychology, Greek philosophy, Western existentialism, and American transcendentalism and humanism. Conversely, it has commonly been presented that mindfulness meditation has origins in Buddhist philosophy (Baer, 2003; Chiesa & Malinowski, 2011; Davidson, 2012; Kabat-Zinn, 1994, 2003). Nonetheless, there is little argument that modern Western mindfulness practices differ from Buddhist meditations and are purely secular (Baer, 2003; Chiesa & Malinowski, 2011; Davidson, 2012; Kabat-Zinn, 1994, 2003). Rechtschaffen (2014) argued "throughout history religious and cultural traditions around the world have used meditation to build on the capacities of authenticity, kindness, and insight" (p. 36). He further proposed that mindfulness

> does not belong to Christianity, Buddhism, or Tao-ism, just as the breath we inhale and exhale does not belong to any one of us … These universal practices have been cultivated throughout millennia – or, we may say, they have cultivated us. (Rechtschaffen, 2014, p. 36)

Kabat-Zinn (1994) actualized the practice of MBSR as Western secular mindfulness meditation training in 1979 at the University of Massachusetts Medical Center. The results of Kabat-Zinn's (1982) study with treatment-resistant patients showed highly promising results for patient reduction in stress and physical symptoms. These initial positive results of MBSR began a mindfulness movement such that currently, there are mindfulness-based programs worldwide. Mindfulness training has been offered in hospitals and clinics, workplaces, military, schools, and prisons and the impact and efficacy of mindfulness has been studied in medical, psychology, neuroscience, business, government, and education (Kabat-Zinn, 2003; Meiklejohn et al., 2012). In the US, the NIH offers mindfulness training as a vehicle to improve physical and mental health and reduce stress (NIH, 2014) and similarly, employers generally offer mindfulness training to mitigate stress, promote well-being, and ultimately improve the performance of employees (Aikens et al., 2014).

Mindfulness training. Given the widespread nature of mindfulness practice, it is not surprising that multiple forms of mindfulness training have emerged. Therefore, it has become vital to clarify central components and purpose of mindfulness training, while also acknowledging differences. Kabat-Zinn (2003) shared that mindful practices and training should be grounded

> in silence, stillness, self-inquiry, embodiment, emotional sensitivity, and acceptance of the full gamut of emotional expression held in awareness… and acknowledgment of the universal longing in people for happiness, well-being, resilience, and peace of mind, body, and soul and how that longing might be effectively met, honored, and mobilized for transformation among program participants. (p. 153)

In a review of the literature, Brown et al. (2007) indicated that mindfulness was a self-regulatory, metacognitive, acceptance, and emotional regulation skill, which promoted compassion and self-consciousness and emphasized mindfulness as an integrated awareness, rather than a cognitive processing element. Furthermore, Cullen (2011) stated mindfulness training, or as sometimes referred to as Mindfulness-Based Interventions (MBI), was a method to provide training and support mindfulness skill building for groups in an accessible language that shared "contemplative practice and values in a universal, non-religious, non-dogmatic way" that cultivates wholesome mental states (p. 192). Davidson and colleagues (Mind and Life Education Research Network [MLERN], 2012) likewise imparted contemplative traditions and training "are intended to produce alterations in basic cognitive and emotional processes, such as attention and the regulation of certain forms of negative affect, as well as to enhance particular character traits that are considered virtuous, such as honesty and kindness" (p. 147).

It has become essential to clarify components of effective mindfulness training, while also clarifying the purpose and intent of mindfulness and recognizing the physiological imperatives for mindfulness training or MBI. Baer (2003) presented that effective MBIs encompassed exposure, cognitive change, self-management, relaxation,

and acceptance. Exposure was described as nonjudgmentally noticing and labeling thoughts, sensations, and emotions, and that in doing so, participants can both recognize the transient nature and change perceptions of the thoughts, sensations, and emotions, thereby reducing distress, stress, and suffering (Baer, 2003). Additionally, Baer (2003) described effective MBIs as resulting in cognitive change through the practice of noticing thoughts and emotions remotely, thereby avoiding rumination and recognizing that thoughts are not reality and the differences in psychological threats and feeling physiological responses. Baer (2003) identified self-management as an essential component of effective mindfulness training. She described that through increased awareness and self-observation, participants gain coping skills to recognize behavior nonjudgmentally and then make changes (Baer, 2003). While Baer (2003) specified that relaxation was not a primary goal of MBIs, she acknowledged that it was a by-product of mindfulness training, as a result of interrupting racing thoughts, emotional arousal, and noticing the physiological effects of stress. Baer (2003) identified acceptance as an essential component of mindfulness training, as nonjudgmental acceptance of various states of being was a foundation to mindfulness practice. Kabat-Zinn (2003) clarified that mindful practice was centered on non-striving and required participants to "let go of expectations, goals, and aspirations" (p. 149). While acknowledging mindfulness could have initial negative effects, as participants become aware of negative thoughts, emotions, and patterns, Davidson and Kaszniak (2015) further proposed the goal of mindfulness meditation was to "transform everyday life" (p. 582).

Mindfulness training has been presented as a group practice intended to both inform participants of mindfulness concepts and skills and to discuss and practice the

skills. Corliss (2014) determined that participants generally found group practice helpful for mindfulness training. Mindfulness training has included the essential construct of formal and informal practice (Meiklejohn et al., 2012). Formal practice has been described to include sitting, moving or laying down, and informal practice as bringing mindful awareness to everyday activities. Kabat-Zinn (2003) proposed mindfulness benefits were "greatly enhanced through regular disciplined practice, both formally and informally, on a daily basis" (p. 148).

While participant practice has been presented as an essential component of efficacious mindfulness training, a best-practice length of effective mindfulness training as not been established. MBSR, the originating mindfulness training which has provided the foundation for other mindfulness training, proffered an 8-week group training involving two and a half hour weekly sessions, a 6-hour day long session, with 30-45 minutes of daily formal practice (Cullen, 2011; Kabat-Zinn, 2003; Khoury et al., 2015). Conversely, Tang et al. (2007) found significant benefits in short-term mindfulness training, 20 minutes per day for five days. Although effective mindfulness training length has not been established, Ameli with the NIH (2014) imparted that "any amount of regular practice can be beneficial" (para. 4).

Finally, the mindfulness training instructor has been acknowledged as vital to effective mindfulness training (Cullen, 2011; Kabat-Zinn, 2003). Lack of regulated instructor requirements has been recognized as a challenge for MBI (Cullen, 2011). The Center for Mindfulness trains MBSR certified teachers; however, only 100 instructors have been MBSR certified worldwide after 10 years (Cullen, 2011). Given the widespread growth of mindfulness training, 100 instructors are far from adequate.

Additionally, there are differences in clinical-based MBSR program implementation and generally healthy populations such as businesses and schools. Although teacher requirements and certification have not been standardized, Baer (2003) and Kabat-Zinn (2003) signified the critical importance of instructors being grounded in their personal practice and have suggested that mindfulness cannot be taught effectively by a teacher who does not practice mindfulness.

Recently, Crane et al. (2016) described what elements were necessary for mindfulness-based programs and instructors and identified which elements can be targeted to specific populations and contexts. Crane et al. (2016) proposed the necessary elements for MBI included the program incorporate principles from contemplative practices, medicine, psychology, and education, a foundation of human experience and ways of relieving distress, a focus on present moment awareness, an intention of cultivation of attention, self-awareness, emotional regulation, compassion, and equanimity, and supports participant training, exercises, and practice in an inquiry-based learning process. Additionally, Crane et al. (2016) advised the MBI instructor embody mindfulness qualities and attitudes, participate in regular practice, has engaged in training, and supports an integrated didactic learning process with students. Crane et al. (2016) advocated that these core elements may be refined and adapted to specific populations by tailoring curriculum elements, program structure, length, time, and delivery. Crane et al. (2016) also suggested the instructor be familiar with the participant population and contexts.

Mindfulness empirical research. Extensive research exists with mindfulness meditation. Praissman (2008) conducted a literature review on the effects of MBSR, the

pioneering mindfulness meditation training. Praissman (2008) reviewed 62 studies on the effects of MBSR on stress and proposed MBSR as an "effective treatment for reducing stress and anxiety that accompanies daily life and chronic illness" (p. 212). She also noted that MBSR was beneficial for health care providers and had no negative side effects (Praissman, 2008).

Multiple meta-analysis studies have also been conducted on MBSR and other mindfulness meditation research. In 2003, Baer analyzed 21 studies on mindfulness and reported an overall medium to large effect size effect size of .59 for all variables in all studies. Populations for research included chronic pain, Axis 1 disorders (anxiety, eating disorders, depression), medical disorders (psoriasis, fibromyalgia), mixed populations (psychological functioning, psychiatric disorders), and nonclinical (students, volunteers). All studies reported increased psychological functioning and mental health, and symptom improvement (Baer, 2003). Additionally, she acknowledged that mindfulness was difficult to measure, as a measurement of awareness, insight, and feelings of compassion were largely internal constructs, and a placebo was not possible when measuring mindfulness (Baer, 2003).

In 2004, Grossman, Niemann, Schmidt, and Walach conducted a meta-analysis of 20 studies using MBSR (N=1,605) where physical and mental well-being was measured. Groups included were healthy to chronic illness, and contained clinical populations with pain, cancer, heart disease, depression, and anxiety. The overall effect size was 0.5. Grossman et al. (2004) concluded, "MBSR may help a broad range of individuals to cope with their chronic and nonclinical problems" (p. 35), and the "consistent and relatively

strong level of effect sizes indicates that mindfulness training might enhance general features of coping with distress and disability in everyday life" (p. 39).

In their literature review on mindfulness intervention, Brown et al. (2007) reported, "empirical research conducted to date supports the role of mindfulness in well-being" (p. 220) with overall increases in participant self-regulation, emotional regulation, health and well-being, and social interaction and decreases in negative psychological states, and the researchers relayed that "mindfulness, and specifically, mindfulness-based interventions may also have salutary effects on physical health more generally" (p. 222). Additionally, Brown et al. (2007) described improved interpersonal relationships, which they associated with improved emotional attention and responses in social situations, and a decrease in emotional reactivity. Moreover, the researchers reported increased insight, mind-body functioning, and executive function and stated there was a "growing convergence of findings across multiple methodologies, all of which point to the provisional conclusion that mindfulness and its cultivation support healthy, adaptive human functioning" (Brown et al., 2007, p. 27).

Likewise, Greeson (2008) in a review of 52 empirical studies on mindfulness found decreased emotional distress, an increase in positive states of mind, and improvements in quality of life. Greeson (2008) shared that through the promotion of awareness, attention, acceptance, and compassion, the optimal health of mind, body, relationships, spirit, and meaning of life resulted. Additionally, Greeson (2008) concluded that the amount of participant practice aligned to positive effects of mindfulness. Greeson (2008) summarized "clinical trials and laboratory studies alike suggest that the mechanisms of mindfulness include not only relaxation, but important

shifts in cognition, emotion, biology, and behavior that may work synergistically to improve health" (p. 15).

Furthermore, Goyal et al. (2014) conducted a meta-analysis of mindfulness-based meditation programs, not restricted to MBSR, which included 47 trials and 3,320 participants. They reported moderate effect sizes of decreased anxiety, depression, and pain, and low effect sizes for stress, mental health, and quality of life (Goyal et al., 2014). As with Greeson (2008), Goyal et al. (2014) found more mindfulness practice led to larger effects. Most recently, Khoury et al. (2015) analyzed 29 studies (N=2,668) with MBSR and healthy adults. They reported large effect sizes on stress, moderate on anxiety, depression, distress, and improved quality of life, with small effects on burnout. Khoury et al. (2015) stated these results were aligned to clinical population results, and they expressed the need to identify the most effective elements of MBSR.

Given the positive results reported from MBSR and other MBIs in the medical and psychology fields, it was not surprising that businesses began to incorporate mindfulness into the workplace. Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) incorporated a 7-week loving kindness meditation training (LKM) in a random wait-list control study with 67 intervention participants and 72 wait-list participants at a technology company. The LKM training focused on openhearted contemplation, which was intended to engender warmth and caring for self and others (Fredrickson et al., 2008). The researchers conducted extensive data analysis on 18 variables and reported "the findings are clear cut: The practice of LKM led to shifts in peoples' daily experiences of a wide range of positive emotions, including love, joy, gratitude, contentment, hope, pride, interest, amusement, and awe" (Fredrickson et al., 2008, p.

1020). Additionally, participants showed increased social support, life satisfaction, and health, with decreased illness and depressive symptoms (Fredrickson et al., 2008).

Likewise, Hülsheger, Alberts, Feinholdt, and Lang (2013) studied 219 employees while measuring emotional regulation, emotional exhaustion, and job satisfaction. The random control trial study involved a 5-day employee mindfulness self-training. Results showed significant decreases in emotional exhaustion and a moderate decrease in emotional regulation, with a significant increase in job satisfaction, within and between employees (Hülsheger et al., 2013). Furthermore, Aikens et al. (2014) conducted a random wait-list control study on mindfulness training in the workplace with 89 employees at a chemical company. The mindfulness training was an online mindfulness training module and involved 17 hours over seven weeks (Aikens et al., 2014). Employee stress, resiliency, well-being, vigor, and mindfulness were all measured pre- and post-training with a six-month follow-up. Results showed significant decreases in stress and increases in mindfulness, resiliency, and vigor. These results were obtained during a widespread layoff and plant closure during the 6-month interval after training. Aikens et al. (2014) concluded the cost-benefit for employers was beneficial, as the mindfulness training offered "significant protective effects" (p. 10).

Given the positive results from various mindfulness training interventions, it is worthy to explore the mechanisms for the positive results. Two psychological models have been presented to describe the effects of mindfulness training. Fredrickson (1998) posited a model to explain the effects of mindfulness. In the broaden-and-build model, Fredrickson (1998) described negative emotions as narrowing thought and action, while positive emotions broaden thoughts and actions and therefore, personal resources, which

have a compounding building effect. Fredrickson (1998) suggested that positive emotions mediate negative emotions such that strategies, which promote positive emotions, health, and well-being, would have resultant decreases in negative emotion. Fredrickson (1998) suggested yoga, meditation, and muscle relaxation to build contentment.

Additionally, Weinstein, Brown, and Ryan (2009) conducted a series of four longitudinal studies with lab work on college students. Weinstein et al. (2009) described that "mindfulness facilitates stress processing, … predicts lower emotional reactivity to threatening situations, and quicker recovery from unpleasant emotional states" (p. 384). They proposed a model to illustrate mindfulness as a positive coping mechanism for stress, which resulted in improved well-being (Weinstein et al., 2009).

Neuroscientists have also presented research to describe how mindfulness works. Several researchers have reported changes in neural attentional networks due to brain plasticity (MLERN, 2102; Davidson & McEwen, 2012; Meiklejohn et al., 2012; Posner & Rothbart, 2005; Tang, Hozel, Posner, 2015). Davidson (2012) explained that neuroplasticity was the mechanism for behavioral outcomes and was important for emotional regulation. Semple explained, "breathing triggers the parasympathetic nervous system – the opposite of fight or flight response – which slows heart rate and makes blood pressure go down (as cited in Oaklander, 2016, p. 47). Additionally, the size and gray matter in the amygdala, hippocampus, and prefrontal cortex areas of the brain has been shown to change with mindfulness training (Davidson, 2012; Meiklejohn et al., 2012; NIMH, 2014; Posner & Rothbart, 2005). Davidson and McEwan (2012) clarified "moderate to severe stress appears to increase the growth of several sectors of the

amygdala, while effects in the hippocampus and prefrontal cortex tend to be opposite" (p. 698). Meiklejohn et al. (2012) explained, "due to the brain's neuroplastic nature (i.e., its ability to create new neurons and neural connections), individuals can actively change their brain structure in ways that promote brain health and improve the quality of one's life" (p. 293).

As already stated, several researchers have reported that more mindfulness practice elicited other benefits (Goyal et al., 2014; Greeson, 2008). Carmody and Baer (2008) found in a study of 174 adults that "time spent engaging in home practice of formal meditation (body scan, yoga, sitting meditation) was significantly related to the extent of improvement in most facets of mindfulness and several measures of symptoms and well-being" (p. 23). While more mindfulness practice has been shown to promote better outcomes, Mayo Clinic (2016) shared "spending even a few minutes in meditation can restore your calm and inner peace" (para. 1). Rechtschaffen (2014) illuminated "though scientific results make it look like a magic pill, the difficulty is that we cannot swallow mindfulness with a glass of water; we have to practice diligently to experience its effects" (p. 5).

Mindfulness and teachers. Mindfulness training has shown benefits for clinical and healthy adults, including workplaces, and mindfulness training for teachers has begun. A two-pronged argument for promotion of mindfulness with teachers has commenced. First, teaching is a human-centered profession, and teachers need support to handle the stress and emotions of teaching. Second, teacher's mindfulness supports positive student outcomes. In fact, Marzano and Marzano (2015) posited there was "another aspect of effective teaching that has been virtually ignored in the literature on

classroom instruction: the relationship between what teachers are thinking and feeling at any point in time and their actions at the same point in time" (p. 2). They continued by stating, "evidence in education is beginning to mount that the thoughts and emotions of both students and teachers play a critical role in the teaching and learning process" (Marzano & Marzano, 2015, p. 3).

Chang (2009) researched the connection between emotions and teacher burnout and concluded, "teachers need to be able to regulate their emotions with effective coping strategies" (p. 209). Chang (2009) recommended educators recognize teaching as an emotional profession. Garner (2010) also researched teaching and emotion and reflected that teachers lacked training on emotional regulation and he noted that frustration was the number one emotion of teachers. Garner (2010) found positive teacher emotions led to effective teaching strategies, while negative teacher emotion led to low motivation in teachers, which in turn inhibited student learning.

Jennings (2011) imparted, "teaching is more socially and emotionally demanding than it has ever been in the past" (p. 133), a situation that was attributed to increasing student disruptions, overall expectations, and testing. Jennings (2011) stated if teachers do not have effective coping skills, they act in overly punitive ways and are not able to offer a supportive and nurturing environment for students. To promote teacher social-emotional competence (SEC), the Garrison Institute created the Cultivating Awareness and Resilience in Education (CARE) program (Jennings, 2011). Promoting teacher "well-being and SEC may help teachers manage the daily stresses of teaching" (Jennings, 2011, p. 141) and advocated a "healthy classroom climate may reinforce a teacher's enjoyment of teaching of his or her sense of efficacy and commitment to the teaching

profession, resulting in a positive feedback loop that may prevent burnout and reduce costly attrition" (p. 137). Jennings, Frank, Snowberg, Coccia, and Greenberg (2013) stated professional development for teachers "long overlooked by the research community: to support teachers' social and emotional competence and well-being as means of promoting resilience and improving their performance and their students' performance" (pp. 386-387).

Roeser et al. (2013) acknowledged that teachers regularly interact with colleagues, administrators, students, and parents, all of which required attention shifting, emotion, resources, regulation and flexibility, and "withitness." To promote self and emotional regulation, Roeser et al. (2013) suggested that teachers need to establish habits of mind to manage the demands and resources of teaching. The habits of mind shared included gathering sensory data, awareness and reflection on experience nonjudgmentally, flexible problem solving, emotional regulation, resilience, empathy, and compassion. In fact, Roeser et al. (2013) suggested professional disposition to build teacher habits of mind as a fourth professional development topic, in addition to subject, pedagogy, and child development.

Jennings (2011) and other researchers have specifically proposed mindfulness as a tool to prevent burnout and promote well-being in teachers. Chang (2009) suggested that teachers be trained to deal with emotional domains with effective emotional regulation and coping strategies as an antidote to burnout. Meiklejohn et al. (2012) found that mindfulness was a cost-effective way for school systems to build resilience and reduce burnout in teachers. Moreover, Roeser et al. (2013) proposed that using mindfulness as a mechanism to build habits of mind, teachers showed improved well-being, occupational

health, engagement, and student relationships. Marzano and Marzano (2015) stated mindfulness was "quite obviously related to managing inner world" (p. 51) and intimated that "managing the inner world is attainable by all teachers with the proper understanding of the human mind and the requisite practice" (p. 55). Additionally, Greenberg et al. (2016) reported that "mindfulness practices can lead to reductions in psychological stress" (p. 9).

An examination of the effects of teachers' emotional regulation on students is important. In their seminal study on the effects of teacher social-emotional competence with students, Jennings and Greenberg (2009) stated that "helping students self-regulate (rather than imposing rules) requires a high degree of awareness, sensitivity, and thoughtful decision making to observe, understand, and respond respectfully and effectively to individual student behaviors" (p. 507). Jennings and Greenberg (2009) described SEC as teachers' self-awareness and the ability to recognize, understand, and manage emotion, social awareness and the ability to build strong relationships with a foundation in understanding, cooperation, and compassion, and prosocial values related to the impact of the decision on self and others. Teachers with low SEC demonstrated low emotional regulation and high levels of stress and burnout, which in turn had negative effects on classroom climate, classroom management, and student relationships (Jennings & Greenberg, 2009). Conversely, teachers with high SEC had strong teacher-student relationships and effective classroom management, and high SEC teachers could support the social emotional learning of their students (Jennings & Greenberg, 2009). Thus, Jennings and Greenberg (2009) theorized a model of a prosocial classroom. The model presented the theory of the dynamics between teacher SEC and student

achievement. Jennings and Greenberg (2009) related "although a great deal of attention has spotlighted students' development, there has been little focus on the teachers' own development, despite evidence that teachers make important contributions to desirable classroom and student outcomes" (p. 496). Meiklejohn et al. (2012) concurred and concluded, "training teachers to embody mindfulness by developing a foundation of personal practice creates a wider and more sustainable benefit to the system of education" (p. 296).

Because of the Jennings and Greenberg (2009) findings, Jennings, with the Garrison Institute, created the Cultivating Awareness and Resilience in Educators (CARE) program. CARE program design included components on emotional skills instruction to promote emotional resilience and regulation, mindfulness and stress reduction practices, and listening and compassion exercises which encompass caring practice, for example, compassion meditation, and mindful listening practice (Jennings, 2011). CARE, a 30-hours over 5-week program, was implemented in Denver, Philadelphia, and New York, and participants in the program were surveyed by a third party. Results indicated that 90% of participants would recommend CARE to a colleague, 84% rated CARE as important or highly important for professional development, and 87% agree or strongly agree that CARE training should be offered to all teachers (Jennings, 2011). Jennings et al. (2011) conducted two pilot studies on the efficacy of CARE, one with 31 teachers in a high-poverty urban school district and another with 43 student teachers and mentors in a suburban/semi-rural area. While the student teachers and mentors showed improvement on reduced stress and distress and increased well-being, motivation, teacher efficacy, and mindfulness, the results were not

significant (Jennings et al., 2011). However, the high poverty teachers showed significant improvement in the measures, and the researchers surmised that teaching in high poverty areas created a greater need for CARE, which in turn led to higher program efficacy (Jennings et al., 2011).

Jennings et al. (2013) then conducted a random control trial with 50 teachers in urban and suburban settings. They measured a battery of tests, including burnout, stress, well-being, teacher efficacy, and mindfulness (Jennings et al., 2013). They found the CARE intervention group demonstrated significant improvement in burnout, stress, well-being, and mindfulness compared to the control group and concluded CARE was promising for teachers "especially those working in challenging settings" (Jennings et al., 2013, p. 386). CARE was the first program for teachers to be funded by the US Department of Education (Kamenetz, 2016). Recently, Jennings et al. (2017) conducted a randomized control study using CARE with 224 teachers in 36 urban schools. Teachers who participated in CARE received 30 hours of in-person training in addition to phone coaching. Results showed "statistically significant direct positive effects on adaptive emotion regulation, mindfulness, psychological distress, and time urgency" (Jennings et al., 2017, p. 1) as well as emotional support as documented in calibrated and coded classroom observations.

Other empirical studies have been conducted to determine the effects of mindfulness training for teachers. Meiklejohn et al. (2012) reviewed mindfulness training programs for teachers including CARE, Mindful Based Wellness Education (MBWE), and Stress Management and Relaxation Techniques in Education (SMART). The programs reviewed by Meiklejohn et al. (2012) worked through a non-didactic

approach and included MBWE (Poulin et al., 2008), a 9-week, 36-hour program; CARE (Jennings, 2011) a 30-hour over 5-week program; and SMART (Roeser et al., 2013), 11 sessions over eight weeks and included two day-long sessions for a total of 36 hours. Meiklejohn et al. (2012) concluded the early results show mindfulness-based training for teachers "can increase teachers' sense of well-being and teaching self-efficacy" (p. 291), in addition to improved relationships, listening, emotional regulation, compassion, and empathy. While acknowledging the need to deepen empirical research on how, why, and under what conditions mindfulness training was effective, Meiklejohn et al. (2012) stated "an extensive body of medical, neurological, and psychosocial research data supports the contention that mindfulness training holds promise" (p. 303) for teachers and was "feasible, socially valid, and sustainable" (p. 302).

Researchers have studied several other mindfulness-based training programs for educators. Abenavoli et al. (2013) measured mindfulness, burnout, positive and negative affect states, sleep, stress, and physical symptoms with 64 middle school teachers in the UK. They found strong negative correlations among the three components of burnout, emotional exhaustion, depersonalization, a sense of personal accomplishment, negative affect, stress, and sleep (Abenavoli et al., 2013). Furthermore, positive correlations between mindfulness and daily physical symptoms, positive affect, and two mindfulness measures were found (Abenavoli et al., 2013). Additionally, Flook et al. (2013) conducted a pilot wait-list control trial study with 18 elementary teachers and measured 16 factors. Teachers participated in a modified MBSR program (mMBSR) which was a derivative of the original MBSR program modified specifically for teachers, and like MBSR, mMBSR involved 36 hours over 8-

weeks in 2.5-hour sessions weekly with one all-day session. Flook et al. (2013) found a dual impact of decreased negative responses and increased positive responses and concluded the compounding effects of the benefits of mindfulness-based programs "designed to enhance teacher personal and professional well-being have the potential to significantly improve educational practices" (p. 190).

Promotion of mindfulness with teachers has also been posited as a method of optimizing student achievement. McKenna expressed "our theory is that if we actually produce educators that are more aware and empathetic and attuned to children, that in its own right is going to have an effect on kids' nervous systems" (as cited in Oaklander, 2016, p. 46). Rechtschaffen (2014) similarly promoted a vision "that teachers' sense of well-being will naturally translate into an environment of wellness for the students" (p. 20) and continued "the hope is that when we learn to embody our own mindful attention, compassion, and emotional regulation, the children in our care will receive the relational nourishment they need to become healthy and happy adults" (p. 30). Moreover, Greenberg et al. (2016) stated the "teacher's own social-emotional competence and well-being are key factors in influencing student and classroom outcomes" (p. 4).

Summary. Mindfulness has been defined as cultivating consciousness, attention, and awareness nonjudgmentally. Mindfulness is expressly conjoined with positive attributes such as kindness, empathy, compassion, and equanimity, and is likewise associated with a non-harming disposition (Cullen, 2011; Kabat-Zinn, 2003). While Rechtschaffen (2014) asserted that mindfulness does not belong to any religion, Baer (2003), Chiesa & Malinowski (2011), Davidson (2013), and Kabat-Zinn (1994, 2003) all

suggested that mindfulness has roots in Buddhism and agree that modern Western mindfulness practices are secular.

As a vehicle for reducing stress and promoting overall well-being, mindfulness training began in the medical and mental health fields and has spread to other industries including the military, business, and education (Kabat-Zinn, 2003; Meiklejohn et al., 2012). MBSR was the original mindfulness-based training program, and since multiple MBI programs have been developed to aid participants in cultivating present-moment awareness, attention, self-awareness, emotional regulation, equanimity, and compassion (Crane et al., 2016). Multiple meta-analyses have been conducted and have found mindfulness to be a beneficial practice in reducing stress, depression or other negative states and promoting various aspects of well-being (Baer, 2003; Brown et al., 2007; Goyal et al., 2014; Greeson, 2008; Khoury et al., 2015; Praissman, 2008). Similar positive results were found in MBI studies conducted in businesses (Aikens et al., 2014; Fredrickson et al., 2008; Hülsheger et al., 2013). Additionally, researchers have demonstrated brain changes resulting in mindfulness practice. While moderate to severe stress can increase the size of the amygdala and decrease the size of the hippocampus and prefrontal cortex, mindfulness has been shown to have the opposite effect (Davidson, 2012; Meiklejohn et al., 2012; NIMH, 2014; Posner & Rothbart, 2005).

Mindfulness training with teachers has been researched to determine both the direct benefits to teachers, as well as benefits to student outcomes. Meiklejohn et al. (2012) in a review of mindfulness-based training for teachers including MBWE (Poulin et al., 2008), CARE (Jennings & Greenberg, 2009), and SMART (Roeser et al., 2013), and found improved teacher self-efficacy, well-being, emotional regulation, listening,

compassion, empathy, and relationships. Similarly, Abenavoli et al. (2013) and Flook et al. (2013) found decreased negative responses and increased positive responses of teachers after mindfulness-based training. Each mindfulness-based program studied had a curriculum with common themes and differences in program delivery. Rechtschaffen (2014) and Greenberg et al. (2016) posit that teacher well-being and social-emotional competence have positive impacts on student outcomes.

Summary

This review of literature covered the topics of stress, self-efficacy, and mindfulness. The review for all three topics included in-depth discussions of concept and definition, history, and related empirical research. Each topic of stress, self-efficacy, and mindfulness was specifically related to teachers. Chapter three will cover the methodology of the study, including research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and study limitations.

Chapter Three

Methods

Educational leaders seek to maximize student outcomes in a variety of ways and addressing teacher stress is an innovative way to promote better student outcomes. Stress has a negative impact on teachers and student learning and has financial costs (Greenberg et al., 2016). Additionally, teachers' sense of self-efficacy has been linked to both teacher capacity and student learning (Ashton & Webb, 1986; Bandura, 1993; Gibson & Dembo, 1984; Pajares, 1996; Redmond, 2015; Tschannen-Moran & Woolfolk Hoy, 2001). Meanwhile, mindfulness has been shown to reduce stress and impact individual's perceptions. Mindfulness training studies that have been conducted with teachers show positive results (Abenavoli et al., 2013; Benn et al., 2012; Flook et al., 2013; Jennings & Greenberg, 2009, Poulin et al., 2008; Roeser et al., 2013). However, the time commitment for these, at 26-36 hours over eight weeks can be prohibitive for school leaders and teachers.

Therefore, the purpose of the study was to determine the extent to which there was a change in teachers' perception of stress, sense of teacher self-efficacy, and mindfulness after an 8-week, 30-minutes per week, mindfulness training course. In this chapter, research design, selection of participants, measurement, and data collection procedures are shared. Additionally, information on data analysis and hypothesis testing and study limitations are presented.

Research Design

A quantitative research design was used for this study. Creswell (2014) indicated that quantitative research is used to examine numerical relationships between variables.

Expressly, the research method was quasi-experimental as the effect of mindfulness training was measured for teachers' perception of stress, teacher self-efficacy, and mindfulness. Each of the variables, teachers' perception of stress, teacher self-efficacy, and mindfulness was measured three times: before, immediately following, and three weeks after the training. Study participants were teachers from the district who volunteered to participate in the mindfulness training program. As a part of the mindfulness training, participating teachers were asked to continue their mindfulness practice between training sessions and were prompted with practice suggestions at the conclusion of each session and electronically following each session (see Appendix A).

Selection of Participants

The population considered for the study was urban secondary school teachers. Participants from the population were teachers who volunteered to take part in the 8-week mindfulness training; therefore, the study sample was a nonrandom convenience sample. Lunenburg and Irby (2008) stated convenience samples are a subset of nonrandom samples and "include the use of volunteers" (p. 174). All participants were certified teachers employed by District C during the 2016-2017 school year and taught in middle or high schools. Solicitation of volunteers for the study was managed with the help of the district wellness coordinator. The wellness coordinator sent the study and mindfulness training information to wellness school contact persons. Additionally, the researcher reached out to wellness contact persons and scheduled school presentations about the study and training. A short PowerPoint was shared at two middle schools and one high school, and the researcher answered teacher questions about the study and mindfulness training. Mindfulness training informational flyers were also left at each

school. Interested teachers emailed the researcher to communicate a desire to participate in the study. A convenient start date, with the day, time, and location within the school building were determined and communicated to all teachers in the three buildings.

Measurement

Measurement for the quantitative study was a combination of three surveys. The surveys included Perceived Stress Scale (PSS), Teacher Sense of Efficacy Scale-Short Form (TSES-SF), and Five-Facet Mindfulness Questionnaire-Short Form (FFMQ-SF). The combined survey was electronic and was completed by teachers before, immediately following, and three weeks after the mindfulness training. Mean scores for each of the sections, PSS, TSES-SF, and FFMQ-SF, were analyzed for this study.

Perceived Stress Scale-Short Form (PSS). The PSS was used to measure stress for RQ1 (see Appendix F). Cohen, Kamarck, and Mermelstein (1983) developed a 14-item scale. The instrument was later shortened to the 10-item PSS scale used in this study. The PSS is "a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives" (Cohen, 1994, para. 1). The survey was used to assess perceptions of general stress rather than content specific stressors or causes of stress. Cohen et al. (1983) stated both test-retest and internal reliability that correlated with other criteria, including behavioral and self-report. The researchers found substantial validity and reliability for the survey and suggested its use as an outcome variable to measure people's ability to cope or reaction to stress (Cohen et al., 1983).

Cohen and Williamson (1988) conducted further research and shortened the 14-item PSS to 10 items. They found the 10-item perceived stress survey had improved

psychometric quality over the 14-item survey (Cohen & Williamson, 1988). The alpha coefficient for the 10 item PSS was .78, demonstrating internal reliability. Cohen and Williamson (1988) reported an improved factor structure and internal reliability for the 10-item survey as compared to the 14-item survey. Reliability statistics each wave of data in the current study for PSS were determined with Cronbach's Alpha test. Results indicated survey reliability for three waves of data before (wave 1), immediately following (wave 2), and three weeks after (wave 3) training, with N=10, wave 1 = .885, wave 2 = .778, and wave 3 = .778.

The PSS 10-item survey was a Likert survey with items correlated "0 = *Never*, 1 = *Almost Never*, 2 = *Sometimes*, 3 = *Fairly Often*, 4 = *Very Often*" (Cohen, 1994, p. 2). Items 4, 5, 7, and 8, were reversed scored, for example, 0 = 4, 1 = 3, 2 = 2, 3 = 1 and 4 = 0. To determine a survey score, all items were summed (Cohen, 1994). A low score indicated low stress while a high survey score, up to a maximum of 40, indicated high stress. As a reference, score the sum of items on the PSS 10-item survey for males was 12.1 and females was 13.7, with standard deviations of 5.9 and 6.6, respectively (Cohen, 1994). For this study, a mean score for the PSS was used.

Teacher Sense of Self-Efficacy Scale-Short Form (TSES-SF). For RQ2, teacher self-efficacy was measured using the TSES-SF developed by Tschannen-Moran and Hoy (2001), (see Appendix D). A 12-item survey was derived from the longer 24-item Teacher Efficacy Scale and was determined by Tschannen-Moran and Hoy (2001) to be reliable and valid. Specifically, construct validity was shown for the survey when it was correlated with other personal teaching efficacy measures (Tschannen-Moran & Hoy, 2001). The alpha reliability for the 12-item survey was .90 and has subscale alpha

of .81 for student engagement, .86 for instructional strategies, and .86 for classroom management (Tschannen-Moran & Hoy, 2001). The TSES was further examined in 2007 and was shown to be consistently reliable (Tschannen-Moran & Woolfolk Hoy, 2007). The TSES-SF had a 9-point Likert scale, scored *1 for nothing*, *5 for some influence*, and *9 for a great deal* (Tschannen-Moran & Hoy, 2001). Items 2, 3, 4 and 11 measure student engagement, 5, 9, 10, and 12 measure instructional strategies, and items 1, 6, 7, and 8 measure classroom management (Tschannen-Moran & Hoy, 2001). For example, item 2 from the student engagement dimension stated: "How much can you do to motivate students who show low interest in school work?" (Tschannen-Moran & Hoy, 2001, p. 12). A high score, a maximum of 108, indicated a very high sense of teacher self-efficacy, while a low score, minimum of 12, correlated with a very low sense of teacher self-efficacy. Through reliability testing, Tschannen-Moran and Hoy (2001) communicated an aggregate mean score for the TSES-SF of 7.1, with a standard deviation of .98, alpha .90. Although three sub-scores were accessible, scoring for this survey was calculated using the mean score for the TSES-SF. For the current study, reliability statistics for the TSES-SF for each wave of data, before (wave 1), after (wave 2), three weeks after (wave 3) training, were determined with Cronbach's Alpha test. Results indicated survey reliability with N=12, wave 1 = .822, wave 2 = .884, and wave 3 = .952.

Five-Facet Mindfulness Questionnaire-Short Form (FFMQ-SF). The instrument used to measure mindfulness as expressed in RQ3 was the FFMQ-SF (see Appendix E). Baer, Smith, Hopkins, Krietemeyer, and Toney (2006) developed the FFMQ survey by statistically examining existing mindfulness surveys; the FFMQ-SF was

derived from the FFMQ. The longer and original FFMQ was created from research conducted on the five separate mindfulness surveys, which included 112 items. The five facets of mindfulness, non-reactivity, observing, acting with awareness, describing, and non-judging, were formulated because of the research (Baer et al., 2006). Internal consistency for the five facets was shown to be adequate to good (Baer et al., 2006). Thus, five elements of mindfulness were identified that were recognized as individual and separate mindfulness constructs (Baer et al., 2006). Apart from observe, the other four of the five facets, non-reactivity, acting with awareness, describing, and non-judging, were all related in expected and consistent ways (Baer et al., 2006). The facet, observe, showed inconsistency between long-term meditators and novices which require more research to clarify inconsistencies (Baer et al., 2006).

The survey FFMQ resulted from research conducted by Baer et al. (2006), as there was evidence for the five distinct and relevant facets of mindfulness with corresponding survey items for the facets. Survey items for the five facets of mindfulness (non-reactivity, acting with awareness, describing, non-judging, and observing) were rated on a five-point Likert scale (1-*Never or very rarely true* to 5- *Very often true*). Baer et al. (2008) validated that the FFMQ were "significantly correlated with meditation" (p. 339) and were positively correlated with expected well-being. The researchers established construct validity for this instrument (Baer et al., 2008).

The 39-item FFMQ was further researched by Bohlmeijer, Klooster, Fledderus, Veehof, and Baer (2011) to develop a valid and reliable short form. As a result of factor analysis, 15 items were deleted from the original form resulting in a 24-item short form. Alpha coefficients ranged from .75 to .87 for the five facets of mindfulness measured on

the FFMQ-SF, indicating the FFMQ-SF was a reliable instrument (Bohlmeijer et al., 2011). Furthermore, the researchers found content validity with appropriate psychometric properties in the short form (Bohlmeijer et al., 2011). Reliability statistics in the current study for FFMQ-SF were determined for each wave of data, before (wave 1), after (wave 2), three weeks after (wave 3) mindfulness training with Cronbach's Alpha test. Results indicated survey reliability with N=24, wave 1 = .844, wave 2 = .902, and wave 3 = .930.

Items for the FFMQ-SF were scored per Likert scale, 1-5, with 1 - *never or very rarely true*, 2 - *not often true*, 3 - *sometimes true, sometimes not true,* 4 - *often true*, 5 - *very often or always true*. Items 4, 5, 7, 8, 11, 12, 14, 17, 19, 22, 23, 24 were all reversed scored by subtracting from six. Although sub-scale scores for the five facets of mindfulness, non-reactivity, observe, acting with awareness, describing, and non-judging were available for the 24-item FFMQ-SF, only the mean score was collected and analyzed for this study. A higher score on the FFMQ-SF indicated the individual was more mindful. Research on the FFMQ-SF by Bohlmeijer et al. (2011) established a mean score of 14.18, with a standard deviation of 3.43.

Data Collection Procedures

Appropriate permissions to conduct the study were obtained. An Institutional Review Board (IRB) form (Appendix I) was submitted and approved through Baker University (see Appendix J). The District C Director of Assessment and the Wellness Coordinator also gave consent for the study to be conducted (see Appendix K). After IRB approval and district permission had been granted, the mindfulness training opportunity was communicated through various media including personal

communication, staff presentation, flyers, and email. No incentives, other than the potential benefits of mindfulness training were offered. Participant consent for the study was collected via form and signature (see Appendix L). A consent statement was also included in the electronic survey.

To ensure confidentiality, before the first mindfulness training session, participants were assigned a participant number by a research assistant. This number was recorded with the teacher name by the research assistant. The researcher did not have access to data linking participant number with a name. This data needed to be collected to correlate before, immediately following, and three weeks after survey data for each participant. After the study was complete and all survey data were collected, the research assistant destroyed information linking teacher name with study participant number.

Data were collected electronically using SurveyMonkey. The SurveyMonkey link was shared with volunteer participants at the first mindfulness training. The 10-item PSS, 12-item TSES-SF, and the 24-item FFMQ-SF were compiled into a 46-item survey (see Appendix E). Study participants completed the survey, which included a question to record their participant number. Survey completion took approximately 10-15 minutes, and the mindfulness training commenced after the initial survey completion.

The last mindfulness training session ended 15 minutes early so that the study participants could complete the 46-item survey again (see Appendix E). The research assistant provided teachers with reminders of their study participant number. Study participants used the link provided to access the survey on SurveyMonkey.

Three weeks following the completion of mindfulness training, the link to the SurveyMonkey survey was shared with teachers who participated in the study. The

research assistant reminded teachers of their study participant number, via personal contact or email. Teachers completed the same 46-item survey, as they did before mindfulness and immediately following mindfulness training. A variety of methods were used to remind teachers to complete the survey including personal contact and email.

Data Analysis and Hypothesis Testing

The participants' survey data were collected using SurveyMonkey. The data was then organized in a Microsoft Excel spreadsheet and imported for statistical analysis into IBM SPSS Statistics Faculty Pack 23 software for Microsoft Windows. The data collected was analyzed to answer research questions. Three hypotheses were tested for statistical differences in perceptions of stress, teacher self-efficacy, and mindfulness before, immediately following, and three weeks after mindfulness training.

RQ1. To what extent was there a difference in teachers' perceptions of stress after mindfulness training?

***H1*.** There was a difference in teachers' perception of stress after mindfulness training.

RQ2. To what extent was there a difference in teachers' perceptions of teacher self-efficacy after mindfulness training?

H2. There was a difference in teachers' perception of teacher self-efficacy after mindfulness training.

RQ3. To what extent was there a difference in teachers' mindfulness after mindfulness training?

H3. There was a difference in teachers' mindfulness after mindfulness training.

A one-way repeated measures AVONA test was used to address each of the three research questions. The significance level was set at .05. This statistical test was used as there was a categorical variable with three categories: before, immediately after, and three weeks after mindfulness training, and a numerical variable with the Likert survey data. Survey data for RQ1 used PSS survey data, RQ2 used TES-SF survey data, and RQ3 data used FFMQ-SF survey data.

Limitations

Research limitations are conditions that exist beyond the control of the researcher (Lunenburg & Irby, 2008). The limitations of this study included:

1. The sample size for the study was limited to teachers who volunteered for the mindfulness training course. A larger sample might have enhanced data reliability, in addition to generalizing the findings to the general population.
2. Data collected was limited to self-reported survey data. Self-reported data has the potential for internal bias, be dependent on emotion or external influence.
3. Study participants were volunteers and might have had a predisposition of the desired effectiveness of mindfulness training.
4. Study participants were asked to practice mindfulness between training sessions. There was no guarantee that participants completed the between session practice and a lack of practice may limit the effects of mindfulness training.
5. Study participants might have had prior exposure to mindfulness or mindfulness training.

Summary

The purpose of this study was to determine the extent to which there would be a difference in teachers' perception of stress, sense of teacher self-efficacy, and mindfulness before, immediately after, and three weeks after an 8-week, 30-minutes per week, mindfulness training course. A quasi-experimental approach was taken in this quantitative study. Teachers from an urban school district volunteered for the study, which was coordinated with the district wellness program. Thirty teachers participated in the study from two middle schools and one high school. Mindfulness training was conducted in each of the three schools after the teachers' duty day.

To measure the differences in teacher perception of stress, sense of teacher self-efficacy, and mindfulness, a survey was given before, immediately after, and three weeks after mindfulness training. The survey was a combination of three surveys, a 10-item PSS, 12-item TSES-SF, and the 24-item FFMQ-SF (see Appendix E). Teacher demographic information was collected for participant description only. The survey was an electronic SurveyMonkey and was kept secure by password protection. Participant confidentiality was ensured.

A one-way repeated measure ANOVA statistical test was run for each research question to measure the difference in perception of stress, teacher self-efficacy, and mindfulness. Limitations of the study included the sample size of the data, self-report data, volunteers, commitment to mindfulness practice, and previous exposure to mindfulness. In the following chapter, the results of the study are presented.

Chapter Four

Results

This study was conducted to determine the effects of an 8-week mindfulness training with teachers on their perception of stress, teacher self-efficacy, and mindfulness. The purpose of the study was three-fold: to examine the extent to which there were differences in teachers' perceptions of stress, perceptions of teacher self-efficacy, and mindfulness before, after, and three weeks after the mindfulness training. The results of the data analysis for the three research questions are presented in this chapter.

Descriptive Statistics

The mindfulness training was conducted with teachers at three school sites in the district, one high school and two middle schools. Mindfulness training occurred between February and May of 2017 and included eight 30-minute sessions conducted after the teacher duty day was completed. For each wave of survey completion, teachers entered a participation code assigned by a research assistant to ensure confidentiality and to correlate waves of data for each participant.

Demographics of the sample population, descriptive statistics, and results of hypothesis testing for each research question are presented. The three research questions were measured with a survey. The survey was a compilation of four components: questions on the demographics of the study sample population, the PSS intended to measure teachers' perception of stress, the TSES-SF proposed to measure teachers' sense of self-efficacy, and the FFMQ-SF intended to measure teachers' mindfulness.

Thirty-two teachers indicated interest and began the study; however, two teachers were not included in data analysis as they began mindfulness training but did not

continue. One teacher at a middle school took a coaching job after school, and the other teacher had family obligations and had to withdraw. Thirty teachers completed the study, 16 at the high school, 53% of the study sample, and seven at each of the middle schools, 47% of the study sample. All teachers volunteered to participate in the mindfulness training. The remaining 30 teachers attended a minimum of five of the eight sessions. The participants included eight males and 22 females. The average age of the teachers was 38; the youngest teacher was 24, and the oldest was 63. Including the current school year, teaching experience for the study participants ranged from one year to thirty-five years. For years teaching, the mean was 10.97, the median was seven, and there was a five-way mode with three teachers each having two, five, six, seven, and 10 years of experience.

The 10-item PSS was scored with a 4-point Likert scale 0 = *Never*, 1 = *Almost Never*, 2 = *Sometimes*, 3 = *Fairly Often*, 4 = *Very Often* (Cohen, 1994, p. 2). Items 4, 5, 7, and 8, were reversed scored, for example, 0 = 4, 1 = 3, 2 = 2, 3 = 1 and 4 = 0. A higher score indicated more stress, while a lower score indicated less stress. The mean score of the 10 items was calculated. See Table 2 for mean and standard deviation for each wave of PSS.

Table 1

Descriptive Statistics for PSS

PSS	*N*	*Mean*	*SD*
Wave 1	23	1.91	.63
Wave 2	23	1.31	.29
Wave 3	23	1.50	.55

The 12-item TSES-SF was scored on a 9-point Likert scale, *1 for nothing, 5 for some influence,* and *9 for a great deal* (Tschannen-Moran & Hoy, 2001). A low score indicated a low sense of teacher self-efficacy, while a high score indicated with a high sense of teacher self-efficacy. Mean was calculated for the 12 items. See Table 3 for the mean and standard deviation for the three waves of TSES-SF.

Table 2

Descriptive Statistics for TSES-SF

TSES-SF	*N*	*Mean*	*SD*
Wave 1	24	6.52	.74
Wave 2	24	6.84	.73
Wave 3	24	7.12	1.02

The 24-item FFMQ-SF was scored on a 5-point Likert scale with 1 - *never or very rarely true,* 2 - *not often true,* 3 - *sometimes true, sometimes not true,* 4 - *often true,* 5 - *very often or always true* (Bohlmeijer et al., 2011). Items 4, 5, 7, 8, 11, 12, 14, 17, 19, 22, 23, 24 were all reversed scored by subtracting from six. A higher score on the FFMQ-SF indicated the individual was more mindful. Mean was calculated for the 24 items. See Table 3 for the mean and standard deviation for the three waves of FFMQ-SF.

Table 3

Descriptive Statistics for FFMQ-SF

FFMQ-SF	*N*	*Mean*	*SD*
Wave 1	25	3.05	.48
Wave 2	25	3.58	.44
Wave 3	25	3.81	.49

Hypothesis Testing

The results of hypothesis testing for the three research questions are presented. The first research question was examined using the 10-item PSS. The second research question was evaluated using the 12-item TSES-SF, and the third research question was studied using the 24-item FFMQ-SF. Each research question was analyzed with a one-way repeated measures analysis of variance (ANOVA) test for three waves of data, before (wave 1), immediately following (wave 2), and three weeks after (wave 3) the mindfulness training.

RQ1. To what extent was there a difference in teachers' perceptions of stress after mindfulness training?

***H1*.** There was a difference in teachers' perception of stress after mindfulness training.

In addition to descriptive statistics, inferential statistics were used to measure RQ1. A one-way repeated measures ANOVA was conducted to test H1. The categorical variable used to group the dependent variable, PSS, was wave of survey data (wave 1, wave 2, and wave 3). The level of significance was set at .05.

The data was analyzed for outliers, and two outliers were found. The outliers were excluded from the following analysis. A one-way repeated measures ANOVA was conducted to compare the effect of mindfulness training on teachers' perception of stress for wave 1, wave 2, and wave 3 conditions. Sphericity was assumed ($\chi^2(2) = 2.87$, $p = .238$). There was a significant difference of perception of stress across the three waves, $F(2, 44) = 12.07$, $p<.001$. Bonferroni-corrected paired-samples *t* tests were used to make post hoc comparisons between conditions. A first paired sample *t* test indicated that there was a statistically significant difference between wave 1 (*M = 1.91, SD* = .13) and wave 2 (*M =1.31, SD* = .06). A second paired sample *t* test indicated that there was a statistically significant difference between wave 1 (*M = 1.91, SD* = .13) and wave 3 (*M =1.50, SD* = .11).

These results indicated that there was a statistically significant reduction in teacher perception of stress before (wave 1) and after (wave 2) mindfulness training. Additionally, there was a statistically significant reduction in teachers' perception of stress between wave 1 (before training), and wave 3 (three weeks following mindfulness training). Furthermore, there was not a statistically significant difference in teachers' perception of stress between immediately after (wave 2) and three weeks following (wave 3) mindfulness training, indicating the perception of stress reduction during mindfulness training maintained for three weeks.

RQ2. To what extent was there a difference in teachers' perceptions of teacher self-efficacy after mindfulness training?

H2. There was a difference in teachers' perception of teacher self-efficacy after mindfulness training.

Inferential statistics were used in addition to descriptive statistics to measure RQ2. A one-way repeated measures ANOVA was conducted to test H2. The categorical variable used to group the dependent variable, TSES-SF, was wave of survey data (wave 1, wave 2, wave 3). The level of significance was set at .05.

The data was analyzed for outliers, and four outliers were found. The outliers were excluded from the following analysis. A one-way repeated measures ANOVA was conducted to compare the effect of mindfulness training on teachers' sense of self-efficacy in wave 1, wave 2, and wave 3 conditions. For the one-way repeated measures ANOVA, results indicated that the sphericity assumption was violated, and thus the degrees of freedom associated with the *F* tests were adjusted based on Greenhouse–Geisser ε-correction values. While the Greenhouse–Geisser statistical test showed $F(1.30, 46) = 4.42$, $p = .035$, pairwise comparisons indicated there was not a significant difference in teachers' sense of self-efficacy across the three waves. These results indicate there was not a change in teachers' sense of self-efficacy before, immediately following, and three weeks after mindfulness training.

RQ3. To what extent was there a difference in teachers' mindfulness after mindfulness training?

H3. There was a difference in teachers' mindfulness after mindfulness training.

In addition to descriptive statistics, a one-way repeated measures ANOVA was also conducted to test H3. The categorical variable used to group the dependent variable, FFMQ, was wave of survey data (wave 1, wave 2, wave 3). The level of significance was set at .05.

The data was analyzed for outliers, and no outliers were found. A one-way repeated measures ANOVA was conducted to compare the effect of mindfulness training on FFMQ in wave 1, wave 2, and wave 3 conditions. For the one-way repeated measures ANOVA, results indicated that the sphericity assumption was violated, and thus the degrees of freedom associated with the *F* tests were adjusted based on Greenhouse–Geisser ε-correction values. There was a significant difference of FFMQ-SF across the three waves, F (1.50, 48) = 26.10, p <.001. Bonferroni-corrected paired-samples *t* tests were used to make post hoc comparisons between conditions. A first paired sample *t* test indicated that there was a statistically significant difference between wave 1 (*M =3.05, SD* =.48) and wave 2 (*M =3.58, SD* =.44). A second paired sample *t* test indicated that there was a statistically significant difference between wave 1 (*M =3.05, SD* =.48) and wave 3 (*M =3.81, SD* =.49). A third paired sample *t* test indicated that there was a statistically significant difference between wave 2 (*M =3.58, SD* =.44) and wave 3 (*M =3.81, SD* =.49).

These results indicated that teachers were increasingly mindful over the three waves of data. There was an increase teachers' mindfulness from before (wave 1) and immediately after (wave 2) mindfulness training. Additionally, there was also an increase in teachers' mindfulness in the 3-week span between wave 2 and wave 3.

Summary

This chapter covered the results of the study on the effects of mindfulness training on teachers' perception of stress and sense of teacher self-efficacy. Descriptive statistics were presented, including information mindfulness training that was held for 30 minutes per week for eight weeks after the teachers' duty day at three schools, one high school

and two middle schools between February and May 2017. Demographic data on the study sample was also shared for the 30 volunteer teachers who completed the study. The mean and standard deviation were provided for the three measurement instruments, the PSS, TSES-SF, and FFMQ-SF.

Additionally, hypothesis testing results for each research question were shared from the repeated measures one-way ANOVA statistical analysis. The data were analyzed in three waves: wave 1 (before), wave 2 (immediately following), and wave 3 (three weeks later). Results indicated statistically significant differences in teachers' perceptions of stress between wave 1 and wave 2, wave 1 and wave 3, and no significant differences between wave 2 and 3; differences indicated reductions in teacher perception of stress. No significant differences in teachers' sense of teacher self-efficacy were found. Finally, statistically significant differences in teachers' mindfulness were found between wave 1 and wave 2, wave 1 and wave 3, and wave 2 and wave 3; differences indicated increases in teacher mindfulness. In the following chapter, conclusions are extended, including interpretation and recommendation.

Chapter Five

Interpretation and Recommendations

The purpose of this study was to examine the extent to which there were differences in teachers' perceptions of stress, teacher self-efficacy, and mindfulness after mindfulness training. Included in this chapter is a study summary including an overview of the problem, purpose statement and research questions, review of methodology, and major findings. Also, findings related to literature are presented as well as conclusions with implications for action, recommendations for future research, and concluding remarks are presented.

Study Summary

Differences in teachers' perceptions of stress and teacher self-efficacy were measured before, after, and three weeks after mindfulness training. Additionally, mindfulness was examined to determine differences in teachers' mindfulness for the same three time periods. Three variables were measured to meet the purposes of this study: perception of stress, teacher self-efficacy, and mindfulness. In this study, mindfulness training was offered to teachers in three schools in the school district, two middle schools and one high school. Thirty teachers, seven at each of two middle schools, and 16 at the high school, voluntarily participated in the after-school training sessions. The mindfulness training was 30-minutes per week for eight weeks, totaling four hours. The researcher was the instructor for mindfulness training, had practiced mindfulness since 2010, and was an Instructional Coach for the district.

Each week there was a topic for the mindfulness training, including awareness of breath, body, emotion, development of the heart, interpersonal, everyday mindfulness,

and looking back and moving forward (see Appendix A). Each mindfulness training session involved participants sharing their weekly practice and insights, communication of new information related to the weekly topic, and practicing mindfulness. After each session, an email was sent to participants with a session summary, suggested practice, and optional resources. The weekly session summary, suggested practice, and optional resources were compiled and shared electronically with participants at the last session (see Appendix B). Additionally, a one-page *Looking Back and Moving Forward* document was shared electronically and as a hard copy at the last session (see Appendix C). A mindfulness training study survey to measure perception of stress, teacher self-efficacy, and mindfulness was completed by participants during the first and last training sessions, and a final survey was completed three weeks following the last session (see Appendix E).

Overview of the problem. Teacher stress presents problems for teacher well-being, student achievement, and district functioning (Briner & Dewberry, 2007; Greenberg et al., 2016). In urban school districts, teacher stress has been noted as especially significant (DiCarlo, 2015; Gray & Taie, 2015; Ingersoll et al., 2014, Seidel, 2014; Simon & Johnson, 2013). Furthermore, teacher self-efficacy affects teachers and student achievement (Redmond, 2015; Skaalvik & Skaalvik, 2014; Tschannen-Moran & Woolfolk Hoy, 2001). Mindfulness practice has shown positive results for teachers, including well-being, teacher self-efficacy, emotional regulation, listening, empathy, compassion, and relationships (Jennings et al., 2017; Meiklejohn et al., 2012; Poulin et al., 2008; Roeser et al., 2013). However, the time commitment necessary to achieve positive results has not been determined. Current teacher mindfulness training time

commitment is generally 30 hours or more over 8-weeks (Abenavoli et al., 2013; Flook et al., 2013; Jennings et al., 2017; Poulin et al., 2008; Roeser et al., 2013). This time commitment can be prohibitive for implementation of mindfulness training for teachers; therefore, it is worthy to determine the efficacy of a shorter time-frame mindfulness training.

The study was conducted in a large urban school district where teacher turnover was a significant challenge. The teacher turnover rate was 36%, and teacher stress was reported to be a significant factor in teacher turnover (HR Director, personal communication, November 21, 2016). Furthermore, as teacher self-efficacy has been shown to impact student outcomes positively, data on teacher self-efficacy was also collected.

Purpose statement and research questions. The purpose of the study was to determine the effects of mindfulness training on teacher's perception of stress and teacher self-efficacy. Furthermore, the study sought to determine differences in teachers' mindfulness after mindfulness training. Therefore, three research questions were posed to identify the extent to which there were differences in teachers' perceptions of stress, teacher self-efficacy, and mindfulness.

Review of the methodology. The study was a quantitative, quasi-experimental study designed to measure three variables, perception of stress, teacher self-efficacy, and mindfulness before, immediately following, and three weeks after mindfulness training. The 30 participants were teachers from two middle schools and one high school in an urban school district who volunteered to participate in the study. A 46-question survey was administered to teachers that was a compilation of three surveys (see Appendix E):

the 10-item PSS to measure perception of stress, the 12-item TSES-SF to measure teacher self-efficacy, and the 24-item FFMQ-SF to measure mindfulness. Demographic data were also collected for describing participants.

Appropriate permissions were obtained, including IRB from Baker University (see Appendix J), the Director of Assessment from the school district (see Appendix K), and participant consent form (see Appendix L). Additionally, there was a consent statement on the electronic survey, which was distributed via SurveyMonkey (see Appendix E). The survey was administered three times to participants, during the first and last mindfulness training sessions and three weeks after the last training session. To maintain participant confidentiality and correlate participant responses for the three survey completions, a research assistant assigned each participant a number; participant numbers were unknown to the researcher.

Three research questions were posed regarding the extent to which there was a difference in teachers' perception of stress, teacher self-efficacy, and mindfulness before (wave 1), immediately following (wave 2), and three weeks after (wave 3) mindfulness training. A one-way repeated measures ANOVA statistical analysis was used to analyze the data for each research question.

Major findings. Data analysis indicated a significant reduction in teachers' perception of stress after participation in mindfulness training and this perception of stress reduction maintained for three weeks following the training. No differences in teachers' sense of teacher self-efficacy before, immediately following, and three weeks after mindfulness training were found. Also, teachers were increasingly mindful over the three waves of data. Specifically, there were significant increases in teachers'

mindfulness from before (wave 1) and immediately after (wave 2) mindfulness training. Additionally, teachers' mindfulness increased significantly from before training (wave 1) to 3-weeks after training (wave 3), and between immediately following training (wave 2) and three-weeks after training (wave 3).

Several findings from the data were noteworthy. The results suggested the 8-week four-hour mindfulness training course may have had an impact on participating teachers' perception of stress and the reduction in perception of stress maintained for three weeks after the last mindfulness training session. Additionally, results indicated participating teachers were more mindful after the training. Furthermore, as teachers' mindfulness continued to increase for the three weeks following training, the results indicated a possibility that the 4-hour mindfulness training had enduring benefits.

Findings Related to the Literature

Lunenburg and Irby (2008) suggested linking results of dissertation studies to existing literature. Thus, a review of relevant literature is shared, and results of the current study are linked to literature. Topics include mindfulness training and teachers' stress, mindfulness training and teachers' sense of self-efficacy, and mindfulness training and teachers' mindfulness.

Mindfulness training and teachers' stress. Following is a summary literature on teacher stress related to the current mindfulness training study. Montgomery and Rupp (2005) presented a model with teachers as the core agent for stress by how they reacted to external events given active or passive coping mechanisms, which result in an emotional response. In the model, Montgomery and Rupp (2005) posited that the teacher is the conduit between external stressors, such as working conditions, student behavior, or

personal life, and passive or active coping mechanisms, which in turn elicit an emotional response. Passive coping mechanisms were identified as avoidance, resignation, or wishful thinking, while active coping mechanisms were identified as cognitive, emotional, and behavioral coping, or health postures (Montgomery & Rupp, 2005). Also, included in the model were aspects of teachers' personality mediators, personal support, and environmental structure, and the authors pointed out teacher stress was affected by their feelings of capacity to confront a situation and recognition of negative emotions. Montgomery and Rupp (2005) theorized that with the use of active coping strategies teachers were more satisfied and positively oriented, while with the use of passive coping mechanisms, teachers were more dissatisfied and negatively oriented.

Teachers' perception of stress may have changed after mindfulness training consistent with the model proposed by Montgomery and Rupp (2005), as mindfulness training addressed the teacher as core agent of stress by helping them to use active coping mechanisms and thereby potentially affecting emotional response to stress. For example, mindfulness training sessions included practice and discussion around using mindfulness practice to create a space of time and awareness of the present moment so that participants could respond rather than react to thoughts, emotions, and situations. Using metacognitive awareness, participants were encouraged to notice stressful situations and any accompanying physical or psychological reactions without judgment. Once awareness of the present moment was established through mindfulness, participants could bring awareness to reactions and engage positive coping mechanisms, which perhaps altered their stress response proposed in the Montgomery and Rupp (2005) model. In

sum, mindfulness may have been a mediator between external situations and internal stress responses through engaging active coping mechanisms.

Lambert et al. (2015) identified teachers' perception of circumstances as influential to stress and job satisfaction. The researchers concluded that subjective teacher perceptions of similar circumstances differ and subsequently have an impact on teacher stress (Lambert et al., 2015). Furthermore, Baer (2003), Brown et al. (2011), Goyal et al. (2014), Khoury et al. (2015), and Praissman (2008) relayed that mindfulness practice and training had shown promise in reducing stress. Additionally, several research institutions have promoted mindfulness as a stress reduction technique (APA, 2016a; Mayo Clinic, 2016; NIH, 2014; NIMH, 2016; USDHHS, 2016). The results of the current study were consistent with this literature. Data analysis indicated the 8-week mindfulness training was associated with a reduction teachers' perception of stress and the reduction maintained for the three weeks following training.

During mindfulness training, multiple techniques for altering perceptions of stress were offered. One technique provided during the training was the SEE technique. SEE is an acronym for separate, embrace, evaluate and involved the participant separating the emotion or circumstance from himself or herself, embracing emotion and thoughts (this relates to non-judgment inherent to mindfulness), and evaluating the situation by being curious about the situation and considering different perspectives (J. McGraw, personal communication, March 2, 2017). This technique may have been beneficial to teachers' perception of stress, as when a situation is examined with logic rather than emotion, one may perceive the situation to be less threatening and therefore less stressful.

Another example directed at altering perceptions of stress was provided during week three of the training. Teachers watched a portion of the TED Talk by Kelly McGonigal (2013) titled *How to Make Stress Your Friend*. In the talk McGonigal (2013) shared research on how changing how one's perceptions about stress resulted in a reduction of stress symptoms. McGonigal (2013) shared that recognizing stress as a body's natural reaction to a situation may help achieve the task at hand. During mindfulness training, time was spent discussing how to incorporate mindfulness practice with the information gleaned from McGonigal (2013) as a way to examine the perception of stress. Non-judgment was emphasized as a component of mindfulness practice, as was noticing the present moment, including moments of stress and emotional or physical reactions to stress. A possible explanation for the reduction in teachers' perception of stress in the study may be attributed to information, discussion, and practice linked to stress during mindfulness training.

Jennings et al. (2010, 2013) identified social emotional competence as a key to teacher stress reduction, and Greenberg et al. (2016) also identified teacher social emotional competence as one of four primary sources of stress. The results of the study are consistent with these studies. Social emotional competence was approached several ways during mindfulness training. First, two weeks were spent on the topic of emotion and teachers were asked to practice becoming aware of and labeling their emotions nonjudgmentally. Using the SEE technique or general mindfulness practice, teachers were encouraged to consider their emotions and perspectives of what may be causing them. This process may contribute to emotional regulation, which is a component of social-emotional competence.

Additionally, social emotional competence was addressed during mindfulness training by directing teachers' attention to their own mindsets and behaviors. For example, the topic for week five of mindfulness training was development of the heart. The focus for the week was on kindness, compassion, empathy, and joy for self and others. As a suggested practice, teachers were asked to offer kindness and compassion to a student the teacher paid less attention to and a struggling student. During mindfulness training discussion time, teachers shared the exercise was helpful as it provided a framework for interactions and resulted in enhancing relationships.

Teachers' social-emotional competence was also attended to during week six of the training as interpersonal was the weekly topic. The interpersonal topic covered awareness and consideration of interactions of teachers own and others' emotions. Information, discussion, and practice included promotion of nonjudgmental awareness, labeling of others' emotions, and consideration of sources of emotion may have contributed to participant feelings of social-emotional competence. Also, during week six of mindfulness training, participants listened to a portion of the Lake Meditation by Kabat-Zinn (2014a). The Lake Meditation is an analogy of our emotional lives. Kabat-Zinn (2014) shared that while all emotional states are embraced, a turbulent surface, or high emotional state, is not reflective of the surrounding area, whereas a calm surface, or calm emotional state, is a more accurate reflection of the surrounding area. Additionally, the quality of equanimity was integrated aligned to the calm depths of a lake. Teachers' perception of a reduction in stress from this study may be partially explained by an increased sense of social-emotional competence gained from information, discussion, and

practice related to topics of emotion, development of the heart, and interpersonal during mindfulness training.

Mindfulness training and teachers' sense of self-efficacy. Ensuing is a summary of literature related to mindfulness training and teacher self-efficacy as associated with the current study. Results suggested that there were no significant differences between before, immediately following, and three weeks after mindfulness training on teachers' perceptions of self-efficacy. Bandura's (1977, 1994, 1997) recognized affective state as one of the four sources of self-efficacy. Differences in teachers' sense of self-efficacy after mindfulness training may have been affected by increased mindfulness, associated emotional regulation, and examination of perspective, which were promoted during mindfulness training and may have impacted teachers' affective state. However, results of the study did not support differences in teachers' sense of self-efficacy.

The lack of differences in teachers' self-efficacy could be partially explained by the possibility that other factors might have a stronger effect on teacher self-efficacy. Bandura (1977, 1994, 1997) presented that mastery experience was the strongest source of self-efficacy. Also, Ashton and Webb (1984) noted that teacher self-efficacy was related to multiple factors, including building leadership, resources, teacher demographics, and context. Moreover, Tschannen-Moran and Woolfolk Hoy (2007) reported that teacher self-efficacy was related strongly to mastery experiences, leadership, and low student disruption, and Tsouloupas et al. (2010) noted that student misbehavior had a significant correlation with teacher self-efficacy. Results of the

current study may not have been consistent with Bandura's theory due to additional prevailing influences.

Additional influences contributing to teachers' sense of self-efficacy may have included several prominent events that occurred during mindfulness training. At one of the middle schools, there was a fatal car crash involving multiple students. Also, there were several incidents at the high school that necessitated an offer by the district for crisis counseling for students and staff. Moreover, several study participants experienced significant events in their personal lives during the study. These events may have influenced teachers' sense of self-efficacy by contributing as other factors influencing teacher self-efficacy.

Poulin et al. (2008) reported teachers experienced significant increases in teacher self-efficacy with MBWE mindfulness training. Additionally, Meiklejohn et al. (2012) reported in a meta-analysis review of several mindfulness training programs for teachers, that mindfulness training could increase teacher self-efficacy. Furthermore, in a random control trial, Jennings et al. (2013) found significant positive results in teachers' sense of teacher self-efficacy after CARE mindfulness training. The results of the current study were not consistent with these studies. One possible reason for differences in results may be the length of mindfulness training as the mindfulness training programs researched have generally been 30 hours in length.

Mindfulness training and teachers' mindfulness. The subsequent section provides a review of literature of mindfulness training and teachers' mindfulness related to the current study. Results indicated that teachers were more mindful after the three-week training and they continued to increase their mindfulness in the three weeks

following training. Baer (2003), Crane et al. (2016) and Kabat-Zinn (2003) indicated the critical importance of mindfulness instructors being grounded in personal practice and Crane et al. (2016), Cullen (2011), and Kabat-Zinn (2003) noted the importance of instructor for effective mindfulness training. Since the mindfulness training instructor may be a meaningful factor in mindfulness training, the current study was consistent with this literature. As the instructor for mindfulness training, the researcher was grounded in personal practice, and although this was the first mindfulness training implemented, was highly experienced with a broad range of effective instructional practices.

Additionally, the mindfulness training conducted during the study was intentionally centered on the concept of mindfulness as presented by Kabat-Zinn (1994) as a way of intentionally paying attention in the present moment without judgment. Chiesa & Malinowski (2011) described mindfulness as a state, skill, and practice. These three contexts were promoted during the training by practicing and discussion mindfulness as all three contexts, as a state, skill, and practice. Furthermore, mindfulness has been described as having two characteristics, one of awareness of the present moment, self-regulation of attention, and metacognitive awareness, and the other of openness, curiosity, and acceptance of the present moment without judgement of associated thoughts or emotions (Chiesa & Malinowski, 2011; Davidson & Kaszniak, 2015; Flook et al., 2013; Jennings et al., 2011). Mindfulness training offered during the study promoted these characteristics through training sessions, suggested practice, and resources shared via session summary documents.

Likewise, Kabat-Zinn (2003), Baer, (2003), Brown et al. (2007), and Cullen (2011) addressed mindfulness training as a group practice intended to inform participants of

mindfulness concepts and skills and to practice and discuss these skills. Kabat-Zinn (2003), Baer, (2003), Brown et al. (2007), and Cullen (2011) also suggested mindfulness practice result in cognitive change as well as differences in emotional processes, which involve noticing and labeling emotions with acceptance. Additionally, Meiklejohn et al., (2012) promoted both formal and informal mindfulness practices be presented as a part of training. Results from the study indicate consistency with study results and literature related to content and delivery of mindfulness training.

Mindfulness training curriculum enacted for the study was consistent with the related literature on mindfulness training and included components promoted by current literature. For example, during session four of the training, teachers practiced mindfulness by listening to and discussing a portion of the Mountain Meditation by Kabat-Zinn (2014b). The Mountain Meditation provided an analogy of becoming the mountain while watching and experiencing the weather and other events while remaining solid and stable. Discussion about awareness of the present moment, self-awareness, emotional awareness and regulation, nonjudgment, and similar topics followed these sections and was incorporated throughout the mindfulness training sessions.

Conclusions

Teacher stress is a significant problem that affects teachers, students, school districts, and the community. Finding ways to address teacher stress is a challenge for school leaders, especially given constraints of time. Additionally, teacher self-efficacy is an influential concept that has effects on teachers, student outcomes, and organizational effectiveness. The study sought to determine the differences in teachers' perception of stress and sense of teacher self-efficacy after mindfulness training course and if

differences maintained for three weeks following training. The efficacy of mindfulness training was also measured to determine differences in teachers' mindfulness after training. Mindfulness training was held 30-minutes per week for 8-weeks after the teachers' duty day. Teachers were sent session summaries with suggested practice and optional resources after each session and a compilation of all sessions at the end of the training.

Data analysis from the study indicated significant differences in reduction of teachers' perception of stress from before mindfulness training to after, and the reduction maintained for three weeks following the training. Furthermore, there were significant increases in teachers' mindfulness from before training to after training and before training to three weeks after training. Moreover, teachers' mindfulness continued to increase from after training to three weeks after training.

Implications for action. The length of mindfulness training was a considerable difference in the current study compared to research. Although Tang et al. (2007) found significant benefits to short-term mindfulness training, multiple researchers have implemented mindfulness training involving over 30 hours, including MBSR (Kabat-Zinn, 2003), MBWE (Poulin et al., 2008), CARE (Jennings et al., 2010), mMBSR (Flook et al., 2013), and SMART (Roeser et al., 2013). While each study garnered favorable results, the time commitment required of teachers ranged from 7.5 to 9 times the time commitment of mindfulness training implemented in the current study.

Although conducted with only 30 teachers in one school district, the positive results from this study related to a reduction in teachers' perception of stress, not only during the training but lasting three weeks beyond training, indicate the implementation

of short time-frame mindfulness training for teachers warrants further research. Furthermore, the results of increases of teacher mindfulness after training and the continued increase in mindfulness three weeks later indicated the training might have been efficacious in sharing durable mindfulness practices through the mindfulness training. The minimal time commitment of four hours over eight weeks has potential to be significantly beneficial for teachers, students, leaders, and the community.

The results of the study indicate school leaders of the district and other districts may consider offering short time-frame mindfulness training session for teachers. The potential reduction in teacher perception of stress and increase in mindfulness after four hours of mindfulness training hold promise for the promotion of teacher well-being. As scholars suggested mindfulness practice be incorporated into professional development for teachers, school leaders may consider offering mindfulness training available as a professional development opportunity during the teachers' duty day (Chang, 2009; Greenberg et al., 2016; Jennings et al., 2013; Marzano & Marzano, 2015; Roeser et al.; 2012).

Recommendations for future research. Several recommendations for future research stem from this study. A mixed-methods study would be helpful to capture qualitative data related to teachers' perception of stress, teacher self-efficacy, and mindfulness, as well as other implications for teachers. The qualitative aspect of a mixed-method study would also be beneficial to glean feedback on the mindfulness training curriculum and verify the quantitative results of the current study. Moreover, to determine the long-lasting effects of mindfulness training, continuing to collect data beyond the 3-week after training time-period would contribute to the efficacy of a short

time-frame mindfulness training. Another recommendation is to offer monthly follow-up sessions after the 8-week mindfulness training to review, expand, or deepen mindfulness practice, particularly in relation to teacher instruction and student outcomes, and measure the long-term effects of training with the implementation of monthly follow-up sessions. This longitudinal data would expand the current research and may include changes in results on teacher self-efficacy. Furthermore, determining how to scale mindfulness instructor training would be advantageous to facilitate sustainable, scalable implementation of mindfulness training. Moreover, expanding the study population to include educators beyond teachers, including administrators, counselors, social workers, para-educators, and any adult working in the school environment, in addition to expanding the study population beyond urban teachers would be informative research. Finally, extending mindfulness training to suburban and rural districts and comparing results would contribute to the literature on the topic.

Concluding remarks. Results of the study indicated that short time-frame mindfulness training was associated with a reduction in teachers' stress and increased mindfulness. Although more research is needed, this study contributed to literature regarding the length of mindfulness training necessary to glean positive benefits for teachers. As time is limited for teachers and school leaders, the short-time frame mindfulness training for teachers may help reduce the perception of stress and increase mindfulness practice.

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Appendices

Appendix A: Mindfulness Training Curriculum

Mindfulness training curriculum

Each week, summary email with resources with suggested practice and reflective questions sent to participants.

Each week opens and closes with listening to the bell.

Week 1: Introduction
Survey
Background- History, what is mindfulness
Breath, noticing present moment without judgement
Listening

Suggested Practice:
At least once a day, bring your attention to the present moment and focus on breath.

Optional resources:
http://www.mindful.org/your-brain-on-meditation/
http://www.mindful.org/guided-breathing-meditation-cultivate-awareness/
http://www.mindful.org/9-ways-mindfulness-reduces-stress/

Week 2: Body
Check in on previous week
Breath, noticing thoughts without judgement, listening
Difference between formal & informal practice
Tape: Sitting mindfulness with Jon Kabat-Zinn – first 5 minutes of 10-minute session
Body – intentionally notice physical body, body scan

Suggested practice:

1. Several times through the week bring awareness to your body, as you stand, shift weight, or lay down, notice your heart rate and breath, sounds you hear, things you touch, or how your body is reacting to the environment. Remember the themes of noticing and awareness, without judgement and greeting thoughts, sensations or conditions with acceptance.

2. Continue noticing breath at least once a day, try to make this a habit at least one time of the day (waking up, filling a water bottle, when first sitting at desk, etc.) Notice thoughts as they come without judgement, then refocus on breath as anchor. (Informal) – Try 1-5 minutes of focus on breath (formal)

Optional resources:
http://www.mindful.org/two-mindfulness-practices-get-back-touch-body/
http://www.mindful.org/become-mindful-a-practice/
http://www.mindful.org/7-qualities-mindfulness-trained-body-scan/

Week 3: Emotion, part 1
Check in on previous week
Discuss Inside-Out and how joy/sadness are paired; good/bad events co-synchronous; → avoid judgement
SEE technique: Separate (notice, label, create space), Embrace (non-judgement, acceptance) Evaluate (respond rather than react based on logic, values, priorities)

Tape: TED Talk clip on perception of stress, Kelly McGonigle, 1:20-6:46
https://www.ted.com/talks/kelly_mcgonigal_how_to_make_stress_your_friend
Discuss SEE technique with stress perception information

Suggested practice:
1. Continue to practice noticing thoughts, emotions, and body sensations in the present moment and label them as they arise. Try to apply the SEE technique as you practice.
2. Continue making a habit of focusing on breath and noticing thoughts and emotions without judgement for one to five minute each day.

Optional resources:
http://www.mindful.org/meditation-keeps-emotions-in-check/
http://www.mindful.org/emotional-rescue-using-mindfulness-to-reset-your-reactions/

Week 4: Emotion, part 2
Check in on previous week
Noticing thoughts and emotion, label without judgement, SEE technique
Impact of emotion on breath, body, perception of stress
Add layer of looking at cause of emotion -What are triggers? (students?) Be curious without judgement.
Notice coping mechanisms, response, and recovery
Pay particular attention to happiness and joy
Tape: Sitting mindfulness with Jon Kabat-Zinn- Mountain (minutes: 3:00-12:30)
Discussion of tape and analogy of solid stability of mountain to grow in peaceful equanimity as a means of supporting mindfulness and emotional regulation

Suggested practice:
1. Observe emotions in the classroom or other school triggers. Observe effect of awareness on response and recovery. Notice coping mechanisms. Pay particular attention to happiness and joy.
2. Continue making a habit of focusing on breath & noticing thoughts and emotion without judgement. Try to fit in 1-5 minutes of formal mindfulness (sitting) each day.

Optional resources:
http://www.mindful.org/present-moment-awareness-buffers-effects-daily-stress/
http://www.mindful.org/teachers-get-mindfulness-training-students-win/

Week 5: Development of Heart

Check in on previous week (Noticing thoughts & emotions without judgement, noticing physical reactions of emotion, stress on body, SEE technique, mountain meditation – any recall? Triggers from students for emotion? Response/reaction? Triggers for happiness and joy?

Compassion with self and others – offering and practicing compassion through training can help us to not see suffering of others as a threat to our own well-being.

TED Talk clip on happiness, Shawn Achor 9:10-12:12

https://www.ted.com/talks/shawn_achor_the_happy_secret_to_better_work#t-118183

4 neurological circuits for joy and well-being: maintain positive state (gratitude, love and compassion), recover from negative state (ability to reframe), ability to focus (formal mindfulness), & offer kindness and generosity

Practice: loving kindness meditation, with script

Suggested practice:

1. Each day, intentionally cultivate well-being: be grateful for 3 things, notice what makes you joyful, offer compassion to self and others; remember non-judgment and consider situations from different perspectives; practice mindfulness to promote focus; partake in random acts of kindness and generosity.
2. Try to mindfully offer thoughts of kindness and compassion to your most challenging student and a student you pay less attention to. Notice the effects on the relationship and your perspective.
3. Continue focusing on breath & noticing sensations, thoughts, and emotion without judgment, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day) a habit.

Optional resources:

http://www.mindful.org/hardwired-armor-hearts/

http://www.mindful.org/compassionate-boundaries-say-no-heart/

http://www.mindful.org/let-go-11-ways-forgive/

Week 6: Interpersonal

Check in on previous week: kindness & compassion- self and others including students, expanding joy/happiness, perspective/reframing, noticing thoughts and emotions without judgment, SEE technique, noticing thoughts and emotions without judgment

Awareness of relationship – bring awareness of self/emotions and open-heartedness to relationships

Communication: receptive, accurate, and compassionate listening and speaking

Self-awareness: a clouded mirror cannot reflect accurately

Deep listening: compassionate, caring, empathetic, peace, trust, equanimity

Continue development of the heart

Tape: Lake meditation tape Jon Kabt-Zinn 0:50-8:50

Suggested practice:

1. Bring awareness to colleague or student interactions. Notice yours and other's emotions. Bring open-heartedness, understanding and compassion into student and adult interactions. Observe effects of heightened awareness on emotional regulation and relationship(s).
2. Continue focusing on breath & noticing sensations, thoughts, and emotion without judgment, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day) a habit.

Optional resources:
http://www.mindful.org/deep-listening/
mindful.org - emotional self-awareness?
http://www.mindful.org/mindfulness-247/

Week 7: Everyday Mindfulness

Check in on previous week- interpersonal and other insights of incorporating practice into life

Weaving mindfulness into life: - Emerging research is showing that we are happier when present in the moment, even mundane tasks like folding laundry or doing dishes – Expand the Now!

Eating, walking, sleeping, interpersonal, moments of stress

Intentionally incorporate ongoing practice – think about trigger that would help you: time, location, physical, body, emotion?

Bring awareness to the present moment & noticing thoughts, sensations & emotions without judgement

Practice eating a raisin mindfully

Share handout: Neurological Summary from Mindful Schools.

Suggested practice:

1. Observe daily routines with freshness, bring awareness to daily habits; observe effect of awareness on thoughts, emotion, body
2. Continue focusing on breath & noticing sensations, thoughts, and emotion without judgment, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day) a habit

Optional resources:
http://www.mindful.org/mindfulness-innate-trainable-quality-mind/
http://www.mindful.org/three-simple-mindfulness-practices-you-can-use-every-day/
http://www.mindful.org/mouthfuls-of-mindfulness/

60 minutes: Mindfulness with Anderson Cooper:
https://www.youtube.com/watch?v=bNwLcwCdVNA

Week 8: Looking Back and Moving Forward
Check in on previous week
Looking Back and Moving Forward – handout and electronic copy emailed

Overview:

- Focus on breath and noticing thoughts and emotions
- Body: Bring awareness to your body and notice how you react to stress and emotion, perception matters!
- Emotion: Use the SEE technique (Separate, Embrace, Evaluate), be curious about emotions, envision a mountain's stability and embody equanimity
- Development of heart: Cultivate happiness, joy, kindness, compassion, generosity & gratitude
- Interpersonal: Bring self-awareness to relationships, interact with caring and compassion and offer trust, peace and equanimity, envision a lake with quiet deep water and clear reflection when the surface is calm
- Everyday mindfulness: bring mindfulness to everyday activities – driving, eating, folding laundry or walking; think of "triggers" to pull you into the present moment
- Incorporate formal mindfulness into your day!

Suggested Practice:

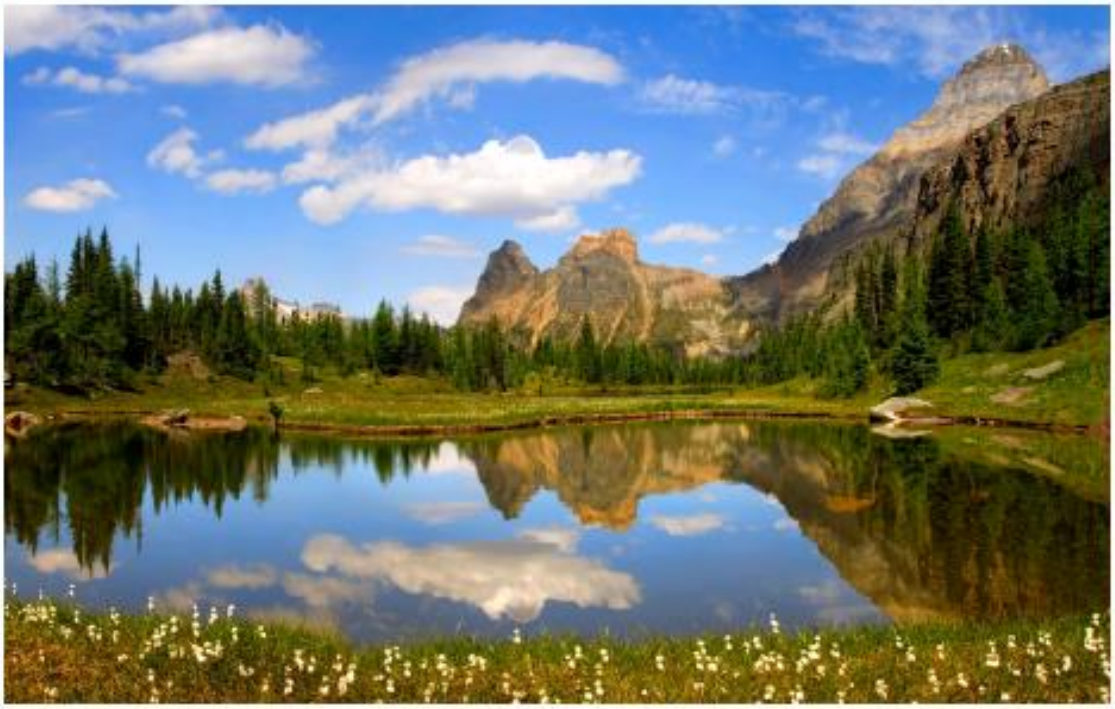
1. Bring awareness to the present moment – notice thoughts emotions, and sensations without judgment
2. Read blogs you missed, find other resources, practice with a friend
3. Bring mindfulness, open-heartedness, and compassion to relationships
4. Take time to focus on your breath every day. Even short periods of mindful practice can change your brain and promote well-being!

Optional Resources:
http://www.mindful.org/9-ways-mindfulness-reduces-stress/
http://www.mindful.org/losing-control-can-make-happier/
http://www.mindful.org/practice-art-being-present/

Appendix B: Mindfulness Training Session Summaries

Mindfulness Training Session Summaries
Spring 2017

"Between stimulus and response, there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom."
Viktor Frankl



1. Introduction
2. Body
3. Emotion, part 1
4. Emotion, part 2
5. Development of Heart
6. Interpersonal
7. Everyday Mindfulness
8. Looking back & Moving Forward

Sharon Walker, Ed. D. Candidate, Baker University

1. Introduction

Each week we open and close with ringing of the bell to help bring our attention to the present moment. Many of us are in the habit of raising our hand when we can no longer here the bell.

Week 1 was an introduction to mindfulness. After completing the initial survey, we talked about using breath as an anchor to aid in noticing the present moment, without judgement; noticing thoughts, sights, sounds, taste, emotions, and sensations. Without judgment indicates that we are kind and gentle with ourselves as we refocus on breath and the present moment. You might think of the analogy of kindly returning a crawling baby to a blanket as you notice your thoughts and return to focus on breath. Another analogy is noticing thoughts as if they are clouds in the sky floating by.

The more you practice the better, so each week, please try the practice, without being hard on yourself if you fall short! :)

Suggested Practice:
At least once a day, bring your attention to the present moment and focus on breath. What do you see or hear? How challenging, or not, is focusing on your breath for 1 minute or more each day?

Optional Resources: (These are short blog posts directed at the weekly topic.)
http://www.mindful.org/your-brain-on-meditation/
http://www.mindful.org/guided-breathing-meditation-cultivate-awareness/
http://www.mindful.org/9-ways-mindfulness-reduces-stress/

2. Body

Summary:
We talked about the differences between informal (moment by moment awareness throughout your day) and formal (intentionally sitting, or laying down and focus on breath) mindfulness. Both are healthy practices! We practiced a 5-minute guided mindfulness mediation narrated by Dr. Jon Kabat-Zinn. We also talked about becoming aware of your body as you move through your day, noticing how your body reacts to emotions and the environment, intentionally fusing your mind and body, and noticing what you are seeing, hearing, and sensing in the present moment. We also talked about a body scan and how this practice can bring awareness to our bodies in the present moment.

Suggested practice:

1. Several times through the week, hopefully daily, bring awareness to your body, as you stand, shift weight, or lay down, notice your heart rate and breath, sounds you hear, things you touch, or how your body is reacting to stress or emotion. Remember the themes of noticing and awareness without judgement and greeting thoughts, emotions, sensations, or conditions with acceptance.

2. Continue noticing breath at least once a day, try to make this a habit at least one time of the day (waking up, filling a water bottle, when first sitting at desk, etc.) Notice thoughts as they come without judgement, then refocus on breath as anchor. (Informal) – Try 1-5 minutes of focus on breath (formal).

Optional Resources:

http://www.mindful.org/two-mindfulness-practices-get-back-touch-body/
http://www.mindful.org/become-mindful-a-practice/
http://www.mindful.org/7-qualities-mindfulness-trained-body-scan/

3. Emotion – Part 1

Summary:

After a check in, we talked about the pairing of "good" and "bad" with events and that "good" events are not all "good" and "bad" events are not all "bad." This realization helps to frame our experiences and bring new perspectives. We also talked about emotions and the partnership of Joy and Sadness in the movie *Inside Out*. This discussion connects into non-judgement as events and emotions are not "good" or "bad" even if our minds want to categorize them as such. Noticing without judgment involves accepting emotions as they are. Dovetailing on this, the SEE technique was shared: *Separate, Embrace, Evaluate* – **Separate** (notice, label, create space), **Embrace** (non-judgement, acceptance), **Evaluate** (respond rather than react based on logic, values, priorities).

We also watched a portion of Kelly McGonigal's TED talk on perception of stress. The link to the full 14-minute talk is below. The talk shared that stress is not "bad", but rather is a physical response that can help us achieve our goals. Our perception of the impact of stress is critical and can significantly impact our lives.
https://www.ted.com/talks/kelly_mcgonigal_how_to_make_stress_your_friend

Suggested Practice:

1. Continue to practice noticing thoughts, emotions, and body sensations in the present moment and label them as they arise. Try to apply the SEE technique throughout your day and incorporate into your practice.

2. Continue making a habit of focusing on breath & noticing thoughts and emotions without judgement for 1-5 minutes each day.

Optional Resources:
http://www.mindful.org/meditation-keeps-emotions-in-check/
http://www.mindful.org/emotional-rescue-using-mindfulness-to-reset-your-reactions/

4. Emotion – Part 2

Summary:
We had a quick check-in on the previous 2 weeks and discussed times we were able to notice our thoughts and emotions without judgement and *respond* to situations (emotional, physical reaction to stress, etc.) rather than react. It is so great to hear your practice is paying off!

We then continued our mindfulness training with week 2 of emotion. In addition to becoming aware of and separating from your emotions, try to be curious about their causes, real or perceived. We also listened to an 8-minute clip of *Mountain Meditation* by Jon Kabat-Zinn. He narrated this time with an analogy of the solid stability of a mountain and how outside changes such as the weather or tourists do not impact the mountain. The mountain remains solid and stable. This imagery can help bring equanimity to our lives.

Suggested Practice:
1. Observe emotions in the classroom or other school triggers. Observe effect of awareness on response and recovery. Notice coping mechanisms. How does becoming aware of the present moment (thoughts, emotions, physical reactions, etc.) have an impact on you? Also, try to pay particular attention to happiness and joy. What makes you happy? When are you joyful?

2. Continue making a habit of focusing on breath & noticing thoughts and emotion without judgement. Try to fit in 1-5 minutes of formal mindfulness (sitting or lying down) each day.

Optional Resources:
http://www.mindful.org/present-moment-awareness-buffers-effects-daily-stress/
http://www.mindful.org/teachers-get-mindfulness-training-students-win/

5. Development of the Heart

Summary:

After a check-in on the previous week, and hearing how mindfulness practice is starting to show benefits for you, we discussed development of the heart. This week week's topic follows emotion, as seeking ways to cultivate joy and happiness brings benefits to overall wellbeing. The premise it that through open-heartedness and showing gratitude, generosity, compassion, and loving-kindness to self and others helps us to see the suffering of others not as a threat to our own well-being, but rather honors the humanness of us all and promotes our own joy.

We watched a short TED talk clip by Shawn Achor on happiness. It is well worth your time to watch the entire talk! He shares that research shows happiness precludes success, so cultivating happiness is a worthy endeavor. Multiple methods to shift our mindsets and cultivate happiness are shared. The link is below.
https://www.ted.com/talks/shawn_achor_the_happy_secret_to_better_work#t-118183

We then discussed the neurological circuits that cultivate joy and well-being as researched by Richard Davidson. They are: 1-*maintain positive state* (practice gratitude, love and compassion), 2- *recover from negative state* (ability to reframe), 3-*ability to focus* (can be cultivated through mindfulness and meditation), 4- *offer kindness and generosity*. (Yes, these are separate and distinct circuits!)

We also practiced a loving-kindness and compassion meditation where first we envisioned loving-kindness and compassion for a ourselves, then a loved one, followed by a someone who causes you some difficulty, and finally to a broader community. This practice is aligned to cultivating love and compassion and helps us to grow in open-heartedness. The loving-kindness and compassion script was emailed.

Suggested Practice:

1. Each day, intentionally cultivate happiness, joy, and well-being! Some ideas: be grateful for 3 things, notice what makes you joyful, journal, offer compassion to self and others, remember non-judgment, consider situations from different perspectives, practice mindfulness meditation to promote focus, or partake in random acts of kindness and generosity.

2. Offer thoughts of loving-kindness and compassion to your most challenging student and a student you pay less attention to. Notice the effects on the relationship and your perspective.

3. Continue focusing on breath & noticing sensations, thoughts, and emotion without judgement, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day) a habit.

Optional Resources:
http://www.mindful.org/hardwired-armor-hearts/
http://www.mindful.org/compassionate-boundaries-say-no-heart/
http://www.mindful.org/let-go-11-ways-forgive/

6. Interpersonal

Summary:

The topic for week 6 is interpersonal relationships. The focus is on bringing awareness of self and emotions and a disposition of open-heartedness to relationships. When we "expand now" and bring self-awareness to relationships and interactions, we are more able to deeply listen in compassionate, caring, and empathetic ways that offer peace, trust, and equanimity.

We also listed to a segment of *Lake Meditation* from Jon Kabat-Zinn. He shared that a lake is held by the earth, and in that offers security. He also shared that while the surface may be frothy or turbulent, the depths are still or have gentle movement. He offered that a calm surface offers clear reflection while a disturbed surface, like a clouded mirror, cannot reflect accurately.

In our mindfulness, we can become aware of the wholeness of the lake metaphor and recognize all states, without judgment as they are all a part of our lives. When we become aware of ourselves in the present moment, we can realize how our emotions affect our perceptions of the world around us, including relationships, and how calmness and equanimity provide an opportunity for a more accurate reflection. With awareness of our emotional state, we can respond with mindfulness rather than react out of emotion.

Suggested Practice:

1. Bring awareness to colleague, student, and other interactions. Notice yours and other's emotions. Bring open-heartedness, understanding and compassion into student and adult interactions. Observe effects of heightened awareness on emotional regulation and relationship(s).

2. Continue focusing on breath & noticing sensations, thoughts, and emotion in the present moment without judgment, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day), a habit.

Optional Resources:

http://www.mindful.org/deep-listening/
http://www.mindful.org/mindfulness-247/

This link is for a resource aligned to our work I thought you might be interested in, the Daniel Goleman, the author of *Emotional Intelligence*. How Emotionally Self-Aware Are You?

7. Everyday Mindfulness

Summary:

After ringing in, we checked in on the previous week. It is good to hear you are finding ways to incorporate mindfulness practice into your lives. Envisioning a mountain or lake to aid your practice of mindfulness, emotional awareness and regulation can be helpful. Considering perceptions of emotions, stress, and relationships without judgment enhances your ability to interact with and live your life in fulfilling ways that promote overall well-being.

This week's topic is *Everyday Mindfulness*, bringing awareness to everyday activities such as driving, eating, walking, folding laundry, or cooking. Research shows that expanding the "now" being present, during even mundane tasks, can alter your perception of the task and bring happiness and joy.

Try to think of "triggers" to pull your awareness to the present moment. Some ideas are, every time you wake up, say good morning to family or colleagues, drive your car, fill a glass of water, have body sensations of stress, or turn on a light switch. These all, and many more, can be reminders to become aware and present in-the-moment.

You also received the *Neuroscience of Mindfulness* handout from Mindful Schools. Please let me know if you have any questions!

Suggested Practice:

1. Observe daily routines with freshness and bring awareness to daily habits, including greetings to others. Observe the effect of in-the-moment awareness on your thoughts, emotions, sensations, and body.

2. Continue focusing on breath & noticing sensations, thoughts, and emotion in the present moment without judgment, making mindfulness, both informal (throughout your day) and formal (sitting or lying down for 1-15 minutes a day), a habit.

Optional Resources:
http://www.mindful.org/a-7-minute-practice-to-shift-out-of-doing-mode/
http://www.mindful.org/mouthfuls-of-mindfulness/

Below is a link to the *60-Minutes* Mindfulness segment with Anderson Cooper. I think it will be worth your time to watch. https://www.youtube.com/watch?v=bNwLcwCdVNA

8. Looking Back and Moving Forward

Introduction

- Notice thoughts, emotions, and sensations in the present moment without judgment
- Focus on your breath
- Bring your attention back to breath as if returning a baby to a blanket
- Envision thought or emotions as clouds moving across the sky

Body

- Bring awareness to your body as it moves through your day
- Notice how your body reacts to stress and emotion
- Try a body scan

Emotion

- Recognize and practice non-judgment of emotions (they are not good or bad!)
- Remember the importance of perception of stress – recognizing stress reactions are your body helping you through stressful times (Kelly McGonigal TED Talk)
- SEE technique: *Separate, Embrace, Evaluate* – **Separate** (notice, label, create space), **Embrace** (non-judgement, acceptance), **Evaluate** (respond rather than react based on logic, values, priorities).
- Recall the Jon Kabat-Zinn *Mountain Meditation* metaphor & envision solidity and equanimity, whether there are clouds, storms or clear skies
- Respond mindfully rather than react emotionally
- Be curious about the causes of your emotions

Development of the Heart

- Remember happiness precludes success! (Shawn Achor TED Talk)
- Offer kindness, love and compassion to yourself and others
- Notice and cultivate joy and happiness! Some ideas: be grateful for 3 things, notice what makes you joyful, journal, be generous, remember non-judgment, consider situations from different perspectives, practice mindfulness meditation to promote focus, or partake in random acts of kindness

Interpersonal

- "Expand now" and bring self-awareness to relationships and interactions
- Deeply listen in compassionate, caring, and empathetic ways that offer peace, trust, and equanimity
- Envision the *Lake Meditation* by Jon Kabat-Zinn and recognize a calm surface offers a clear reflection of the outer world, and even when the outer world is turbulent, the depths can be still

Everyday Mindfulness

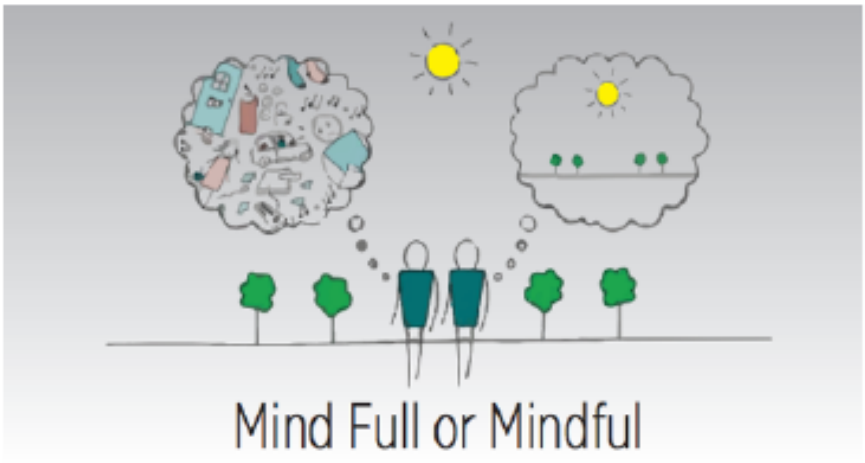
- Bring awareness to everyday activities such as driving, eating, walking, folding laundry, or cooking
- Think of "triggers" to pull your awareness to the present moment (stressful or emotional moments, interactions with others, everyday activities)

Optional Resources

http://www.mindful.org/9-ways-mindfulness-reduces-stress/
http://www.mindful.org/losing-control-can-make-happier/
http://www.mindful.org/practice-art-being-present/

Suggested Practice

- Bring awareness to the present moment - notice thoughts, emotions, and sensations without judgment
- Bring mindfulness, open-heartedness, and compassion to relationships
- Read above blogs you missed, find more resources to help, practice with a friend
- Take time to focus on your breath each day. Even short periods of sitting mindfully can change your brain and promote well-being!



Questions? Please contact Sharon Walker: sderkswalker@gmail.com

Appendix C: Mindfulness Training: Looking Back and Moving Forward

Mindfulness Training ~ Looking Back and Moving Forward

> *"Between stimulus and response, there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom."*
> Viktor Frankl

Introduction

- Notice thoughts, emotions, and sensations in the present moment without judgment
- Focus on your breath
- Bring your attention back to breath as if returning a baby to a blanket
- Envision thoughts and emotions as clouds moving across the sky

Body

- Bring awareness to your body as you move through your day
- Notice how your body reacts to stress and emotion
- Try a body scan

Emotion

- Recognize and practice non-judgment of emotions (they are not good or bad!)
- Remember the importance of perception of stress – recognizing stress reactions are your body helping you through stressful times (Kelly McGonigal TED Talk)
- SEE technique: *Separate, Embrace, Evaluate* — *Separate* (notice, label, create space), *Embrace* (non-judgement, acceptance), *Evaluate* (respond rather than react based on logic, values, priorities).
- Recall the Jon Kabat-Zinn *Mountain Meditation* metaphor & envision solidity and equanimity, whether there are clouds, storms or clear skies
- Respond mindfully rather than react emotionally
- Be curious about the causes of your emotions

Development of the Heart

- Remember happiness precludes success! (Shawn Achor TED Talk)
- Offer kindness, love, and compassion to yourself and others
- Notice and cultivate joy and happiness! Some ideas: be grateful for 3 things, notice what makes you joyful, journal, be generous, remember non-judgment, consider situations from different perspectives, practice mindfulness meditation to promote focus, or partake in random acts of kindness

Interpersonal

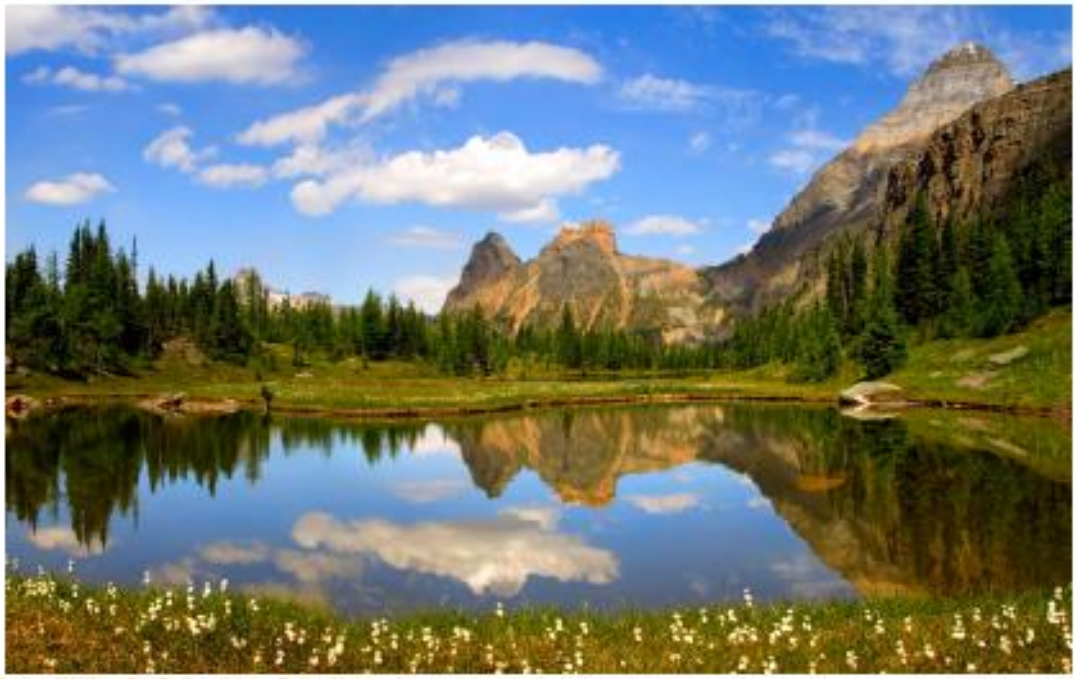
- "Expand the now" and bring self-awareness to relationships and interactions
- Deeply listen in compassionate, caring, and empathetic ways that offer peace, trust, and equanimity
- Envision the *Lake Meditation* by Jon Kabat-Zinn and recognize a calm surface offers a clear reflection of the outer world, and even when the outer world is turbulent, the depths can be still

Everyday Mindfulness

- Bring awareness to everyday activities such as driving, eating, walking, folding laundry, or cooking
- Think of "triggers" to pull your awareness to the present moment (stressful moments, interactions with others, everyday activities)

Suggested Practice (Being mindful takes practice!)

- Bring awareness to the present moment - notice thoughts, emotions, and sensations without judgment
- Read blogs you missed, find more resources, practice with a friend
- Bring mindfulness, open-heartedness, and compassion to relationships
- Take time to focus on your breath each day. Even short periods of mindful practice can change your brain and promote well-being!



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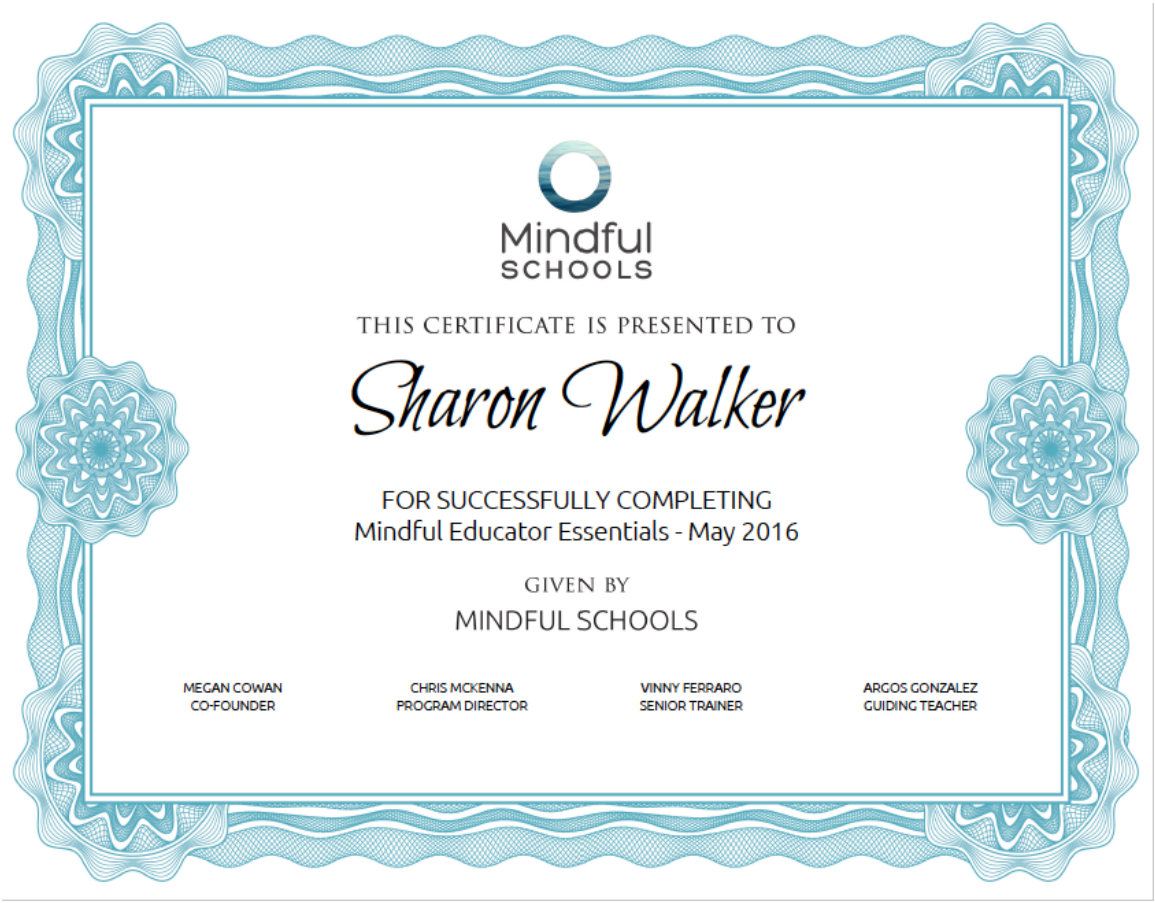
Appendix D: Mindful Schools Educator Essentials Certificate



Mindful
SCHOOLS

THIS CERTIFICATE IS PRESENTED TO

Sharon Walker

FOR SUCCESSFULLY COMPLETING
Mindful Educator Essentials - May 2016

GIVEN BY
MINDFUL SCHOOLS

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CO-FOUNDER

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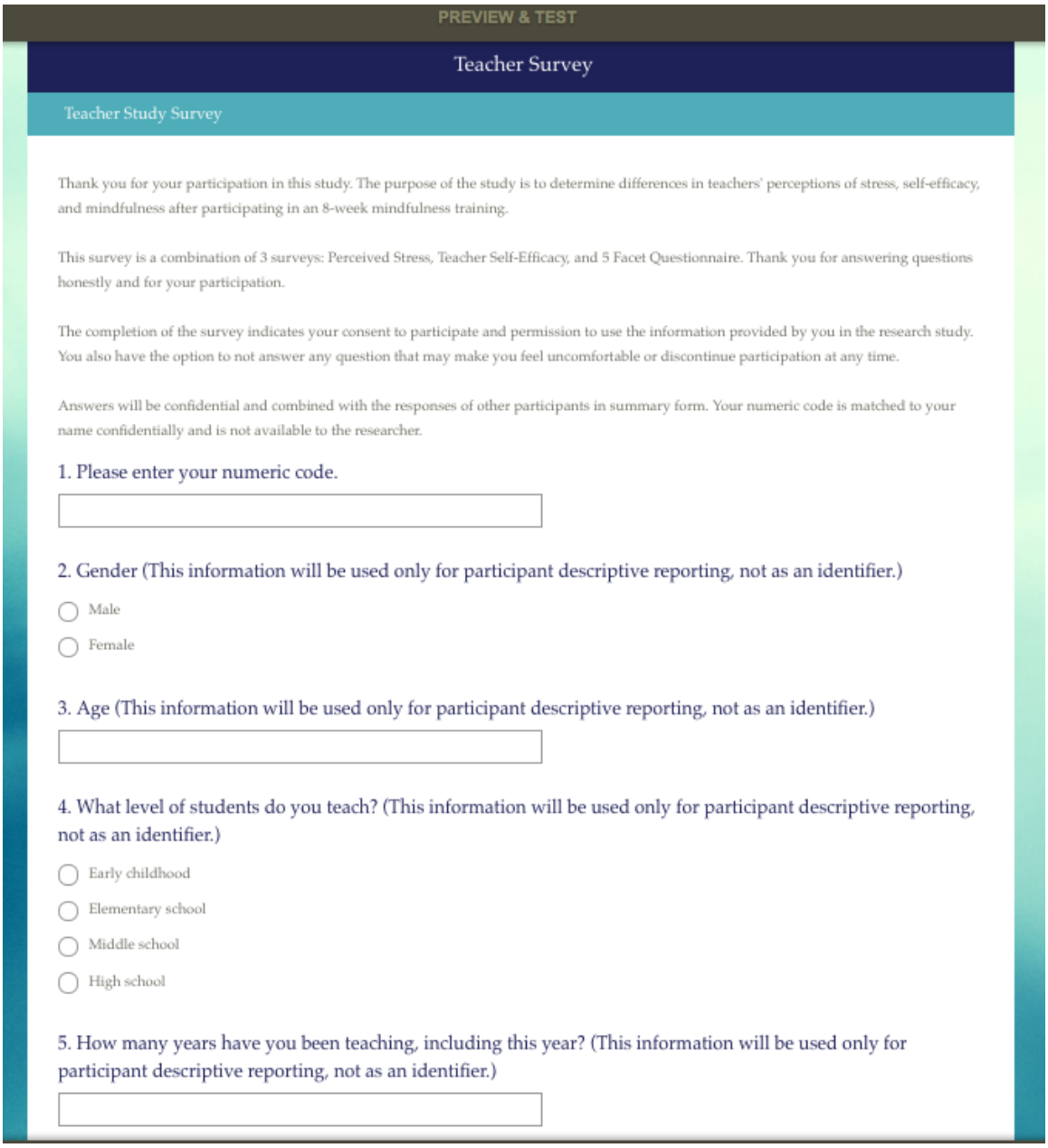
SENIOR TRAINER

ARGOS GONZALEZ
GUIDING TEACHER

Appendix E: Mindfulness Training Survey



PREVIEW & TEST

Teacher Survey

Teacher Study Survey

Thank you for your participation in this study. The purpose of the study is to determine differences in teachers' perceptions of stress, self-efficacy, and mindfulness after participating in an 8-week mindfulness training.

This survey is a combination of 3 surveys: Perceived Stress, Teacher Self-Efficacy, and 5 Facet Questionnaire. Thank you for answering questions honestly and for your participation.

The completion of the survey indicates your consent to participate and permission to use the information provided by you in the research study. You also have the option to not answer any question that may make you feel uncomfortable or discontinue participation at any time.

Answers will be confidential and combined with the responses of other participants in summary form. Your numeric code is matched to your name confidentially and is not available to the researcher.

1. Please enter your numeric code.

2. Gender (This information will be used only for participant descriptive reporting, not as an identifier.)

- Male
- Female

3. Age (This information will be used only for participant descriptive reporting, not as an identifier.)

4. What level of students do you teach? (This information will be used only for participant descriptive reporting, not as an identifier.)

- Early childhood
- Elementary school
- Middle school
- High school

5. How many years have you been teaching, including this year? (This information will be used only for participant descriptive reporting, not as an identifier.)

PREVIEW & TEST

6. **Perceived Stress**

The questions in this section ask you about your feelings and thoughts *during the last month*. In each case, you will be asked to indicate how often you felt or thought a certain way.

	0 - Never	1 - Almost never	2 - Sometimes	3 - Fairly often	4 - Very often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	○	○	○	○	○
2. In the last month, how often have you felt that you were unable to control the important things in your life?	○	○	○	○	○
3. In the last month, how often have you felt nervous and "stressed"?	○	○	○	○	○
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	○	○	○	○	○
5. In the last month, how often have you felt that things were going your way?	○	○	○	○	○
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	○	○	○	○	○
7. In the last month, how often have you been able to control irritations in your life?	○	○	○	○	○
8. In the last month, how often have you felt that you were on top of things?	○	○	○	○	○
9. In the last month, how often have you been angered because of things that were outside of your control?	○	○	○	○	○

PREVIEW & TEST

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	○	○	○	○	○

7. Teacher Efficacy Scale

Directions: The items in this section were designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below based on your experiences ***over the last month***.

	1- Nothing	2	3 - Very little	4	5 - Some influence	6	7 - Quite a bit	8	9 - A great deal
1. How much can you do to control disruptive behavior in the classroom?	○	○	○	○	○	○	○	○	○
2. How much can you do to motivate students who show low interest in school work?	○	○	○	○	○	○	○	○	○
3. How much can you do to get students to believe they can do well in school work?	○	○	○	○	○	○	○	○	○
4. How much can you do to help your students value learning?	○	○	○	○	○	○	○	○	○
5. To what extent can you craft good questions for your students?	○	○	○	○	○	○	○	○	○
6. How much can you do to get students to follow classroom rules?	○	○	○	○	○	○	○	○	○
7. How much can you do to calm a student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
8. How well can you establish a classroom management system with each group of students?	○	○	○	○	○	○	○	○	○
9. How much can you use a variety of assessment strategies?	○	○	○	○	○	○	○	○	○
10. To what extent can you provide an alternative explanation or example when students are confused?	○	○	○	○	○	○	○	○	○

PREVIEW & TEST

11. How much can you assist families in helping their children do well in school?	○	○	○	○	○	○	○	○	○
12. How well can you implement alternative strategies in your classroom?	○	○	○	○	○	○	○	○	○

8. **Five Facet Questionnaire**

Below is a collection of statements about your everyday experience.

Using the 1–5 scale below, please indicate, in the box below each statement, how frequently or infrequently you have had each experience *in the last month*. Please answer according to what really reflects your experience rather than what you think your experience should be.

	1 - Rarely or never true	2 - Not often true	3 - Sometimes true, sometimes not true	4 - Often true	5 - Very often or always true
1. In the last month, I was good at finding the words to describe my feelings.	○	○	○	○	○
2. In the last month, I could easily put my beliefs, opinions, and expectations into words.	○	○	○	○	○
3. In the last month, I watched my feelings without getting carried away by them.	○	○	○	○	○
4. In the last month, I told myself that I shouldn't be feeling the way I'm feeling.	○	○	○	○	○
5. In the last month, it was hard for me to find the words to describe what I was thinking.	○	○	○	○	○
6. In the last month, I payed attention to physical experiences, such as the wind in my hair or sun on my face.	○	○	○	○	○
7. In the last month, I made judgments about whether my thoughts are good or bad.	○	○	○	○	○

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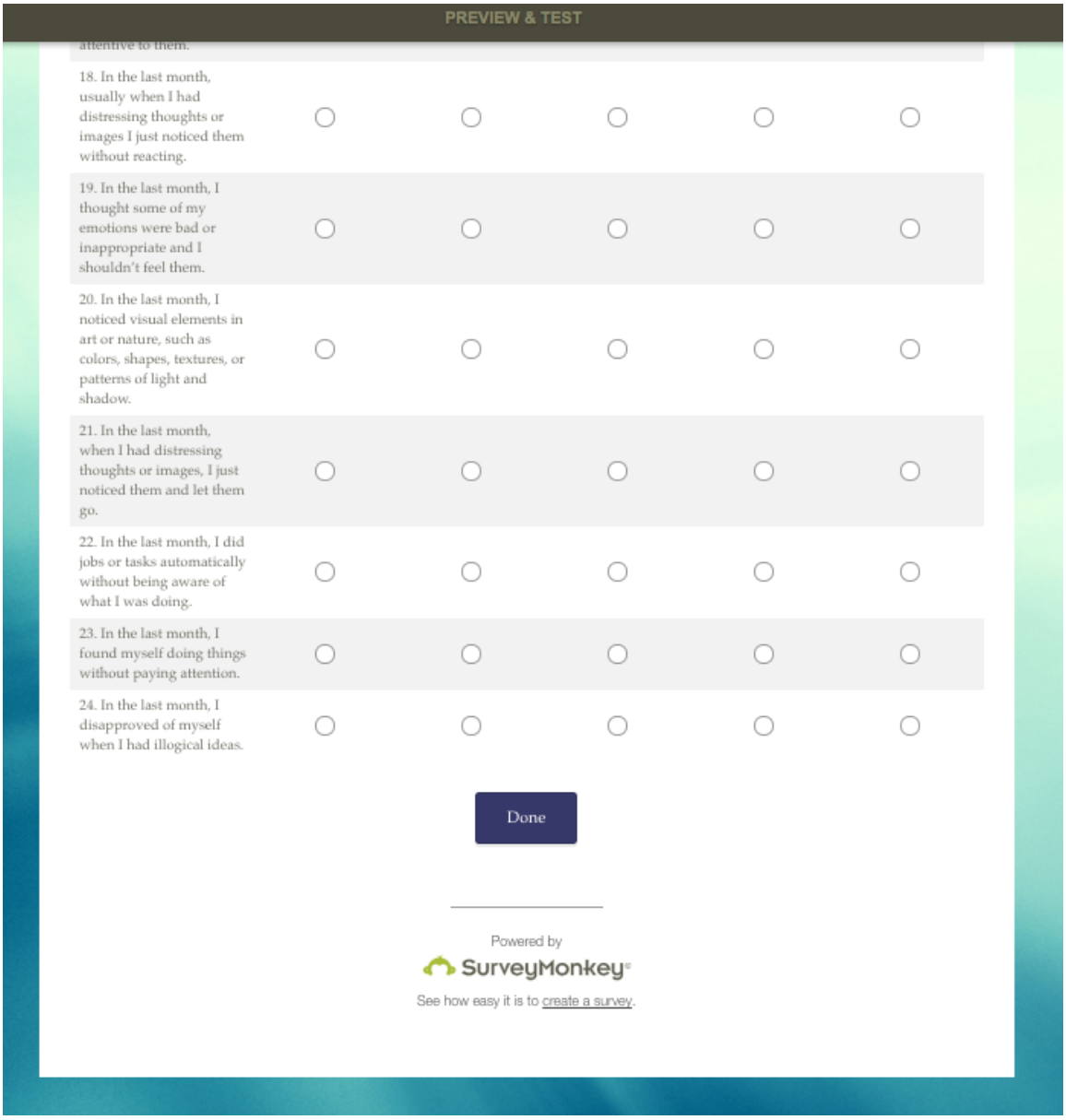
8. In the last month, I found it difficult to stay focused on what's happening in the present moment.	○	○	○	○	○
9. In the last month, when I had distressing thoughts or images, I didn't let myself be carried away by them.	○	○	○	○	○
10. In the last month, generally, I payed attention to sounds, such as clocks ticking, birds chirping, or cars passing.	○	○	○	○	○
11. In the last month, when I felt something in my body, it was hard for me to find the right words to describe it.	○	○	○	○	○
12. In the last month, it seemed I was "running on automatic" without much awareness of what I was doing.	○	○	○	○	○
13. In the last month, when I had distressing thoughts or images, I felt calm soon after.	○	○	○	○	○
14. In the last month, I told myself I shouldn't be thinking the way I was thinking.	○	○	○	○	○
15. In the last month, I noticed the smells and aromas of things.	○	○	○	○	○
16. In the last month, even when I was feeling terribly upset, I found a way to put it into words.	○	○	○	○	○
17. In the last month, I rushed through activities without being really attentive to them.	○	○	○	○	○


PREVIEW & TEST
attentive to them.
18. In the last month, usually when I had distressing thoughts or images I just noticed them without reacting.
19. In the last month, I thought some of my emotions were bad or inappropriate and I shouldn't feel them.
20. In the last month, I noticed visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
21. In the last month, when I had distressing thoughts or images, I just noticed them and let them go.
22. In the last month, I did jobs or tasks automatically without being aware of what I was doing.
23. In the last month, I found myself doing things without paying attention.
24. In the last month, I disapproved of myself when I had illogical ideas.
Done
Powered by
SurveyMonkey
See how easy it is to create a survey.

Appendix F: Perceived Stress Scale

Perceived Stress Scale (PSS)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?..... 0 1 2 3 4

2. In the last month, how often have you felt that you were unable to control the important things in your life? 0 1 2 3 4

3. In the last month, how often have you felt nervous and "stressed"? 0 1 2 3 4

4. In the last month, how often have you felt confident about your ability to handle your personal problems? 0 1 2 3 4

5. In the last month, how often have you felt that things were going your way? 0 1 2 3 4

6. In the last month, how often have you found that you could not cope with all the things that you had to do? 0 1 2 3 4

7. In the last month, how often have you been able to control irritations in your life? 0 1 2 3 4

8. In the last month, how often have you felt that you were on top of things? 0 1 2 3 4

9. In the last month, how often have you been angered because of things that were outside of your control?..... 0 1 2 3 4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? 0 1 2 3 4

Please feel free to use the Perceived Stress Scale for your research.
Mind Garden, Inc. info@mindgarden.com www.mindgarden.com

References

The PSS Scale is reprinted with permission of the American Sociological Association, from:

Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 386-396.

Cohen, S. and Williamson, G. Perceived Stress in a Probability Sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) *The Social Psychology of Health.* Newbury Park, CA: Sage, 1988.

Appendix G: Teacher Self-Efficacy Scale-Short Form

Teacher Sense of Efficacy Scale (Short Form) (TSES-SF)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

Teacher Beliefs - How much can you do?

Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1	2	3	4	5	6	7	8	9

1. How much can you do to control disruptive behavior in the classroom?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

2. How much can you do to motivate students who show low interest in school work?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much can you do to get students to believe they can do well in school work?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How much can you do to help your students value learning?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

5. To what extent can you craft good questions for your students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

6. How much can you do to get children to follow classroom rules?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

7. How much can you do to calm a student who is disruptive or noisy?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

8. How well can you establish a classroom management system with each group of students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

9. How much can you use a variety of assessment strategies?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

10. To what extent can you provide an alternative explanation or example when students are confused?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

11. How much can you assist families in helping their children do well in school?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

12. How well can you implement alternative strategies in your classroom?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

Appendix H: Five-Facet Mindfulness Questionnaire-Short Form

5 Facet Questionnaire: Short Form (FFMQ-SF)

Below is a collection of statements about your everyday experience.

Using the 1–5 scale below, please indicate, in the box to the right of each statement, how frequently or infrequently you have had each experience in the last month. Please answer according to what really reflects your experience rather than what you think your experience should be.

Rarely or never true	Not often true	Sometimes true Sometimes not true	Often true	Very often or always true
1	2	3	4	5

1. I'm good at finding the words to describe my feelings. (DS)
2. I can easily put my beliefs, opinions, and expectations into words. (DS)
3. I watch my feelings without getting carried away by them. (NR)
4. I tell myself that I shouldn't be feeling the way I'm feeling. (-NJ)
5. It's hard for me to find the words to describe what I'm thinking. (-DS)
6. I pay attention to physical experiences, such as the wind in my hair or sun on my face. (OB)
7. I make judgments about whether my thoughts are good or bad. (-NJ)
8. I find it difficult to stay focused on what's happening in the present moment (-AA)
9. When I have distressing thoughts or images, I don't let myself be carried away by them (NR)
10. Generally, I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing. (OB)
11. When I feel something in my body, it's hard for me to find the right words to describe it. (-DS)
12. It seems I am "running on automatic" without much awareness of what I'm doing. (-AA)
13. When I have distressing thoughts or images, I feel calm soon after. (NR)
14. I tell myself I shouldn't be thinking the way I'm thinking. (-NJ)
15. I notice the smells and aromas of things (OB)
16. Even when I'm feeling terribly upset, I can find a way to put it into words. (DS)
17. I rush through activities without being really attentive to them (-AA)
18. Usually when I have distressing thoughts or images I can just notice them without reacting. (NR)
19. I think some of my emotions are bad or inappropriate and I shouldn't feel them. (-NJ)
20. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow. (OB)
21. When I have distressing thoughts or images, I just notice them and let them go. (NR)
22. I do jobs or tasks automatically without being aware of what I'm doing. (-AA)
23. I find myself doing things without paying attention. (-AA)
24. I disapprove of myself when I have illogical ideas. (-NJ)

Scoring
Non-React (NR)= ___; Observe (OB) = ___; Act Aware (AA) = ___;
Describe (DS) = ___; Non-Judge (NJ) =___

Correct scores for items preceded by a dash (-NJ, -AA, etc.) by subtracting from 6
This applies to items: 4, 5, 7, 8, 11, 12, 14, 17, 19, 22, 23, 24

Appendix I: IRB Form

BAKER UNIVERSITY

School of education
Graduate department

Date:
IRB PROTOCOL NUMBER _____
(irb USE ONLY)

IRB Request
Proposal for Research
Submitted to the Baker University Institutional Review Board

I. Research Investigator(s) (Students must list faculty sponsor first)

Department(s) **School of Education Graduate Department**

Name Signature

1. Dr. Susan Rogers, Ph. D., Susan Rogers Major Advisor
2. Dr. Li Chen Bouck Ph. D., Li Chen Bouck Research Analyst
3. (Assigned) _____ University Committee Member
4. (potentially Dr. Barbara Hise, Ph.D.) _____ External Committee Member

Principal Investigator: Sharon Walker Sharon Walker
Phone: (913) 593-9099
Email: sderkswalker@gmail.com; SharonRWalker@stu.bakeru.edu
Mailing address: 6739 Fontana, Prairie Village, KS 66208

Faculty sponsor: Dr. Susan Rogers, Ph.D.
Phone: 785-230-2801 (mobile) or 913-344-1226 (OP Office)
Email: Susan.Rogers@bakeru.edu

Expected Category of Review: ___Exempt _X_ Expedited _ __Full

II: Protocol:

A Pilot Study on the Effects of Mindfulness Training on Teachers' Perception of Stress and Self-Efficacy

Summary

In a sentence or two, please describe the background and purpose of the research.

The first purpose of this study will be to determine the extent to which there is a difference in teachers' perceptions of stress after mindfulness training. The second purpose of this study will be to determine the extent to which there is a change in teachers' perceptions of self-efficacy after mindfulness training. The final purpose of this study will be to determine the extent to which there is a change in teachers' mindfulness after mindfulness training.

The study will be conducted with volunteer teachers in conjunction with the district wellness program at several schools in a large urban school district. The demographics of the district include large percentages of students who are economically disadvantaged and from minority ethnicities. A large percentage of students are underperforming on the 2015 Kansas state test and the 2015 ACT. Furthermore, teacher retention is a problem in the school district. Given the high-poverty, high minority, low achievement of students, and high turnover in the district, both teacher stress and self-efficacy may significantly impact both teachers and student learning.

Briefly describe each condition or manipulation to be included within the study.

The manipulation included within the study will be the mindfulness training. Curriculum for the training is attached. Mindfulness is most commonly defined as, "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4).

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

Three surveys were combined into one survey for use in the study. A 10-item Perceived Stress Scale, 12-item Teacher Self-Efficacy Scale-Short Form, and the 24-item Five Facet Mindfulness Questionnaire-Short Form will be compiled into one survey. Please see attached. Survey data will be collected electronically using Survey Monkey. Permission has been granted to use the surveys for this study. The survey will be given before, immediately after, and three weeks after mindfulness training.

The first survey, the Perceived Stress Scale is a 10-question survey designed to measure perceptions of general stress, including how overloaded, unpredictable, or uncontrollable participants feel their life is, rather than content specific stressors or causes of stress. The

survey has been shown to be both valid and reliable (Cohen, Kamarck, and Mermelstein, 1983).

The second survey, the Teacher Self-Efficacy Survey- Short Form (TSES-SF), is a 12-question survey designed to measure teachers' beliefs' in their ability to impact student engagement, instructional practices, and classroom management. The survey was designed by Tschannen-Moran and Woolfolk Hoy (2001) and has been found to be both valid and reliable.

The third survey, the Five-Facet Mindfulness Questionnaire – Short Form (FFMQ-SF), was published by Baer and colleagues in 2006 (Baer, Smith, Hopkins, Krietemeyer, and Toney, 2006) and the short form was determined to be both valid and reliable by Bohlmeijer, Klooster, Fledderus, Veehof, and Baer (2011). This 24-question survey measures the effects of mindfulness training on the mindful facets of observing, describing, acting with awareness, non-judging, and non-reactivity.

Demographic questions will be included for study sample description. Demographic questions will include gender, age, level taught (early childhood, elemenetary, middle, or high school), and years taught.

Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

Subjects in the study will not encounter psychological, social, physical, or legal risk.

Will any stress to subjects be involved? If so, please describe.

No stress will be involved with the subjects.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

The teacher subjects will not be deceived or misled in any way.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

Information requested by subjects is not foreseen to be personal or sensitive.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

No, the subjects will not be presented with materials, which might be considered offensive, threatening, or degrading.

Approximately how much time will be demanded of each subject?

Volunteer subjects will receive 30 minutes of mindfulness training per week for eight weeks. This training will be offered at several school sites in the district. The before and immediately after surveys will be obtained as a part of the 30-minute training time. Additionally, teachers will be asked to complete the electronic survey three weeks after mindfulness training. The survey should take approximately 10-15 minutes to complete.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The population considered for the study will be urban school teachers. All schools in the district have similar demographics and are urban. School sites for training will be determined with the district wellness coordinator. Participants from the population will be teachers who volunteer to take part in the 8-week mindfulness training. Solicitation for volunteers will be accomplished in cooperation with the district wellness coordinator. Upon IRB approval, she will reach out to various schools with active wellness initiatives to seek teacher volunteers for the training. School sites and start times will then be determined based on convenience of participants. Once sites, dates, and times are determined, the training will be promoted within the district via district electronic notification including the "Staff Notebook", "Department Briefs", or email; flyer notices, and personal contact. All participants will be certified teachers employed by the school district. Gender, age, and level of teaching descriptors will be collected for descriptive data only. If there are not enough volunteers for the study, the study will continue by offering mindfulness training at various district sites until enough volunteers are procured. The solicitation flyer and email are attached.

What steps will be taken to ensure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

There will be no inducements in this study.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

Volunteers will sign a written consent form before any data will be collected. Please see attached.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No aspect of the data collected will be made a part of any permanent record that can be identified with the subject.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

No part of study participation, or non-participation, by subjects will be made a part of any permanent record available to a supervisor, teacher, or employer. Study participant names will not be included in study data. Study participants will be identified by numeric code only. The first training session, a research assistant will collect participant names and assign them a numeric code. The participant will enter only the numeric code on the survey. The list with numeric code and affiliated participant name will be kept in a secure location by the research assistant and will not be available to the researcher. The research assistant will remind participants as necessary their numeric code prior to completing the survey immediately following and three weeks after mindfulness training. The numeric code list will be destroyed by the research assistant at the conclusion of the study.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

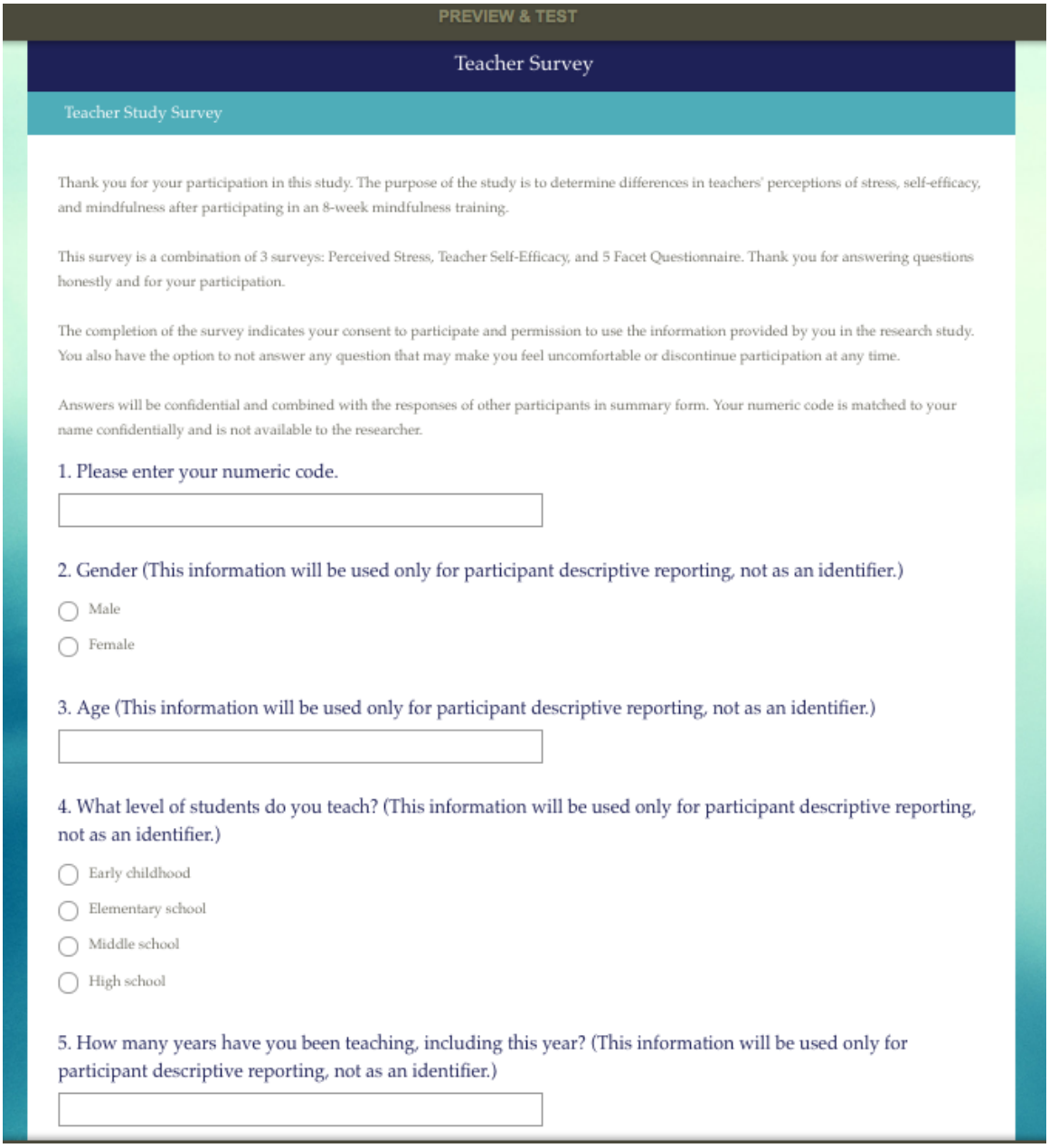
Study participant names will not be collected. Study participants will be identified by numeric code only. Demographic data, including gender, age, level taught, and years of experience, will be collected with numeric code solely for participant descriptive data. Study survey data will be collected and stored electronically with results stored on a password-protected computer only accessible to the researcher. Answers will be confidential and combined with the responses of other participants in summary form. Information reported will not include individual's names or school districts. The data will be destroyed three years after completion of the study.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There will be no risk involved in the study.

Will any data from files or archival data be used? If so, please describe.

There will not be data files or archival data used for the study.



PREVIEW & TEST

Teacher Survey

Teacher Study Survey

Thank you for your participation in this study. The purpose of the study is to determine differences in teachers' perceptions of stress, self-efficacy, and mindfulness after participating in an 8-week mindfulness training.

This survey is a combination of 3 surveys: Perceived Stress, Teacher Self-Efficacy, and 5 Facet Questionnaire. Thank you for answering questions honestly and for your participation.

The completion of the survey indicates your consent to participate and permission to use the information provided by you in the research study. You also have the option to not answer any question that may make you feel uncomfortable or discontinue participation at any time.

Answers will be confidential and combined with the responses of other participants in summary form. Your numeric code is matched to your name confidentially and is not available to the researcher.

1. Please enter your numeric code.

2. Gender (This information will be used only for participant descriptive reporting, not as an identifier.)

- Male
- Female

3. Age (This information will be used only for participant descriptive reporting, not as an identifier.)

4. What level of students do you teach? (This information will be used only for participant descriptive reporting, not as an identifier.)

- Early childhood
- Elementary school
- Middle school
- High school

5. How many years have you been teaching, including this year? (This information will be used only for participant descriptive reporting, not as an identifier.)

PREVIEW & TEST

6. **Perceived Stress**

The questions in this section ask you about your feelings and thoughts *during the last month*. In each case, you will be asked to indicate how often you felt or thought a certain way.

	0 - Never	1 - Almost never	2 - Sometimes	3 - Fairly often	4 - Very often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	○	○	○	○	○
2. In the last month, how often have you felt that you were unable to control the important things in your life?	○	○	○	○	○
3. In the last month, how often have you felt nervous and "stressed"?	○	○	○	○	○
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	○	○	○	○	○
5. In the last month, how often have you felt that things were going your way?	○	○	○	○	○
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	○	○	○	○	○
7. In the last month, how often have you been able to control irritations in your life?	○	○	○	○	○
8. In the last month, how often have you felt that you were on top of things?	○	○	○	○	○
9. In the last month, how often have you been angered because of things that were outside of your control?	○	○	○	○	○

PREVIEW & TEST

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	○	○	○	○	○

7. Teacher Efficacy Scale

Directions: The items in this section were designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below based on your experiences ***over the last month***.

	1- Nothing	2	3 - Very little	4	5 - Some influence	6	7 - Quite a bit	8	9 - A great deal
1. How much can you do to control disruptive behavior in the classroom?	○	○	○	○	○	○	○	○	○
2. How much can you do to motivate students who show low interest in school work?	○	○	○	○	○	○	○	○	○
3. How much can you do to get students to believe they can do well in school work?	○	○	○	○	○	○	○	○	○
4. How much can you do to help your students value learning?	○	○	○	○	○	○	○	○	○
5. To what extent can you craft good questions for your students?	○	○	○	○	○	○	○	○	○
6. How much can you do to get students to follow classroom rules?	○	○	○	○	○	○	○	○	○
7. How much can you do to calm a student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
8. How well can you establish a classroom management system with each group of students?	○	○	○	○	○	○	○	○	○
9. How much can you use a variety of assessment strategies?	○	○	○	○	○	○	○	○	○
10. To what extent can you provide an alternative explanation or example when students are confused?	○	○	○	○	○	○	○	○	○

PREVIEW & TEST

11. How much can you assist families in helping their children do well in school?	○	○	○	○	○	○	○	○	○
12. How well can you implement alternative strategies in your classroom?	○	○	○	○	○	○	○	○	○

8. **Five Facet Questionnaire**

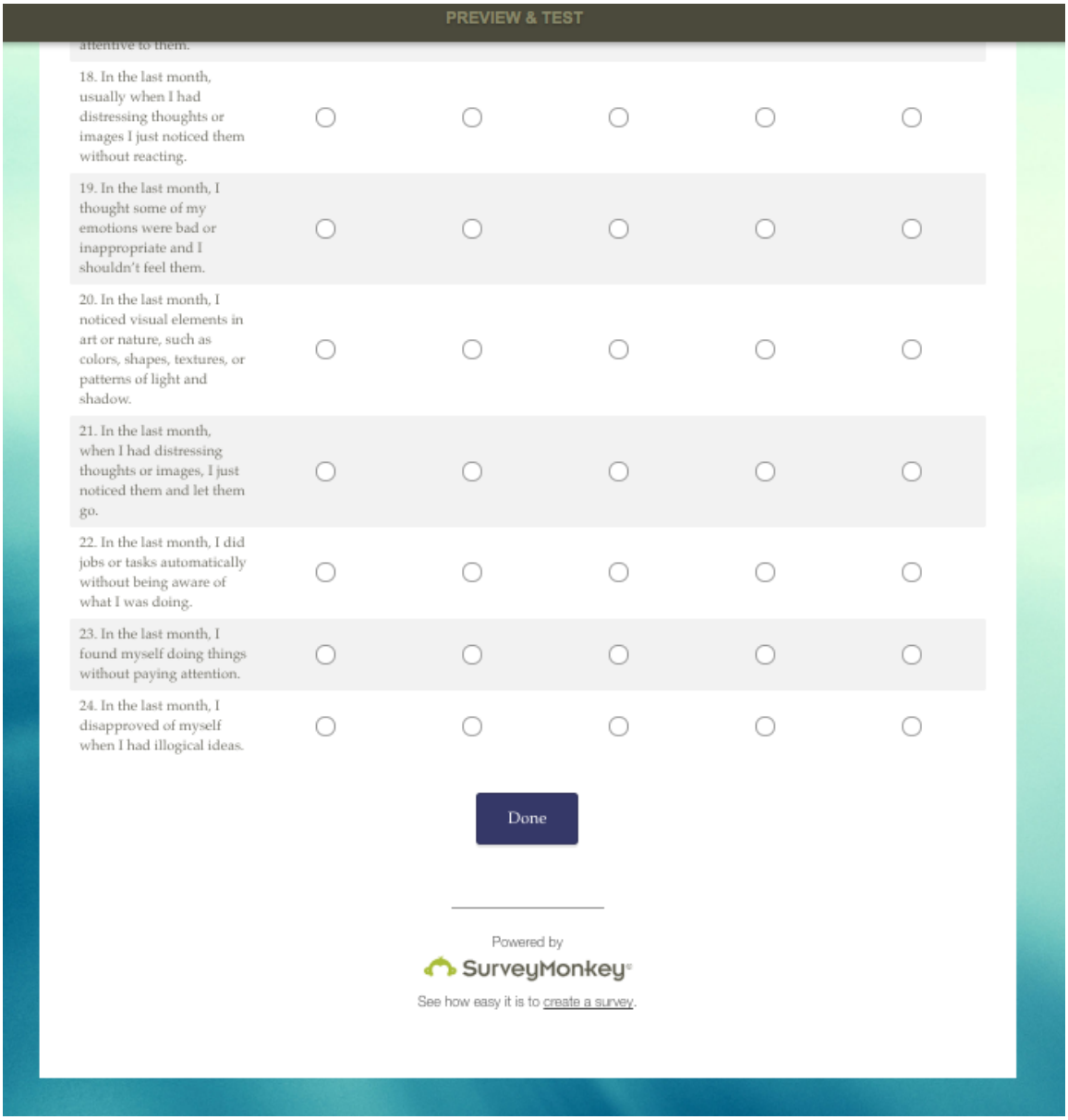
Below is a collection of statements about your everyday experience.

Using the 1–5 scale below, please indicate, in the box below each statement, how frequently or infrequently you have had each experience *in the last month*. Please answer according to what really reflects your experience rather than what you think your experience should be.

	1 - Rarely or never true	2 - Not often true	3 - Sometimes true, sometimes not true	4 - Often true	5 - Very often or always true
1. In the last month, I was good at finding the words to describe my feelings.	○	○	○	○	○
2. In the last month, I could easily put my beliefs, opinions, and expectations into words.	○	○	○	○	○
3. In the last month, I watched my feelings without getting carried away by them.	○	○	○	○	○
4. In the last month, I told myself that I shouldn't be feeling the way I'm feeling.	○	○	○	○	○
5. In the last month, it was hard for me to find the words to describe what I was thinking.	○	○	○	○	○
6. In the last month, I payed attention to physical experiences, such as the wind in my hair or sun on my face.	○	○	○	○	○
7. In the last month, I made judgments about whether my thoughts are good or bad.	○	○	○	○	○

PREVIEW & TEST

8. In the last month, I found it difficult to stay focused on what's happening in the present moment.	○	○	○	○	○
9. In the last month, when I had distressing thoughts or images, I didn't let myself be carried away by them.	○	○	○	○	○
10. In the last month, generally, I payed attention to sounds, such as clocks ticking, birds chirping, or cars passing.	○	○	○	○	○
11. In the last month, when I felt something in my body, it was hard for me to find the right words to describe it.	○	○	○	○	○
12. In the last month, it seemed I was "running on automatic" without much awareness of what I was doing.	○	○	○	○	○
13. In the last month, when I had distressing thoughts or images, I felt calm soon after.	○	○	○	○	○
14. In the last month, I told myself I shouldn't be thinking the way I was thinking.	○	○	○	○	○
15. In the last month, I noticed the smells and aromas of things.	○	○	○	○	○
16. In the last month, even when I was feeling terribly upset, I found a way to put it into words.	○	○	○	○	○
17. In the last month, I rushed through activities without being really attentive to them.	○	○	○	○	○


PREVIEW & TEST
attentive to them.
18. In the last month, usually when I had distressing thoughts or images I just noticed them without reacting.
19. In the last month, I thought some of my emotions were bad or inappropriate and I shouldn't feel them.
20. In the last month, I noticed visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
21. In the last month, when I had distressing thoughts or images, I just noticed them and let them go.
22. In the last month, I did jobs or tasks automatically without being aware of what I was doing.
23. In the last month, I found myself doing things without paying attention.
24. In the last month, I disapproved of myself when I had illogical ideas.
Done
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Mindfulness Training Curriculum

Week 1: Introduction
Survey
Background- History, what is mindfulness
Breath
Noticing thoughts without judgement
Listening
Tape: Sitting mindfulness with Jon Kabot-Zinn
Practice:

1. At least once a day, bring your attention to the present moment and focus on breath.

Resources: http://www.mindful.org/your-brain-on-meditation/
http://www.mindful.org/guided-breathing-meditation-cultivate-awareness/
http://www.mindful.org/9-ways-mindfulness-reduces-stress/

Week 2: Body
Check in on previous week
Breath
Noticing thoughts without judgement
Listening
Body scan
Tape: Lake/Mountain with Jon Kabot-Zinn
Practice:

3. Several times through the week bring awareness to your body, as you stand and shift weight, sounds you hear, things you touch
4. Continue noticing breath at least once a day, try to make this a habit at least one time of the day (waking up, filling a water bottle, when first sitting at desk, etc.) Notice thoughts as they come without judgement, then refocus on breath as anchor.

Resources: http://www.mindful.org/become-mindful-a-practice/
http://www.mindful.org/suffering-is-optional/

Week 3: Emotion, part 1
Check in on previous week
Noticing thoughts & emotions without judgement
Labeling
Creating Space
Tape: Silence with bells with Jon Kabot-Zinn
Practice:

3. Notice emotions and label them as they arise throughout the week. Observe effect of emotional awareness on body and thoughts.
4. Continue making a habit of focusing on breath & noticing thoughts without judgement.

Resource: http://www.mindful.org/meditation-keeps-emotions-in-check/

Week 4: Emotion, part 2
Check in on previous week
Noticing thoughts and emotion, label without judgement
Impact of emotion on breath, body

Continue noticing, labeling, creating space
Happiness
Tape: Sitting mindfulness with Jon Kabot-Zinn
Practice:

3. Observe emotions in the classroom or other school triggers. Observe effect of awareness on response and recovery. Notice coping mechanisms.
4. Continue making a habit of focusing on breath & noticing thoughts and emotion without judgement.

Resource: http://www.mindful.org/5-ways-increase-resilience-wisdom-well/

Week 5: Development of Heart
Check in on previous week
With self and others
Noticing thoughts & emotions without judgement
Gratitude, Happiness, Kindness, Forgiveness, Compassion
Lake/Mountain tape with Jon Kabot-Zinn
Practice:

4. Each day, be grateful for 3 things, focus on self-compassion, observe what makes you joyful
5. Offer thoughts of kindness and compassion to your most challenging student and a student you rarely pay attention to; observe effects of this pattern on understanding and relationship
6. Continue focusing on breath & noticing thoughts and emotion without judgement, making mindfulness a habit.

Resources: http://www.mindful.org/5-ways-to-develop-kindness-and-generosity/
http://www.mindful.org/compassionate-boundaries-say-no-heart/
http://www.mindful.org/hardwired-armor-hearts/
http://www.mindful.org/we-all-have-something-to-give/

Week 6: Interpersonal
Check in on previous week
Noticing thoughts & emotions without judgement
Awareness of relationship
Communication
Compassion & empathy
Continue development of the heart
Tape: Silence w/ bells tape Jon Kabot-Zinn
Practice:

3. Bring awareness to colleague or student interactions. Notice yours and other's emotions. Bring understanding and compassion into student and adult interactions. Observe effects of heightened awareness on emotional regulation and relationship(s).
4. Continue focusing on breath & noticing thoughts and emotion without judgement, making mindfulness a habit.

Resources: http://www.mindful.org/mindfulness-247/
http://www.mindful.org/how-to-have-a-mindful-conversation/
http://www.mindful.org/deep-listening/

Week 7: Everyday Mindfulness
Check in on previous week
Weaving mindfulness into life
Ongoing practice
Noticing thoughts & emotions without judgement
Eating
Walking
Sleeping
Tapes: Sitting mindfulness with Jon Kabot-Zinn
Practice:

3. Observe daily routines with freshness, bring awareness to daily habits; observe effect of awareness on thoughts, emotion, body
4. Continue focusing on breath & noticing thoughts and emotion without judgement, making mindfulness a habit.

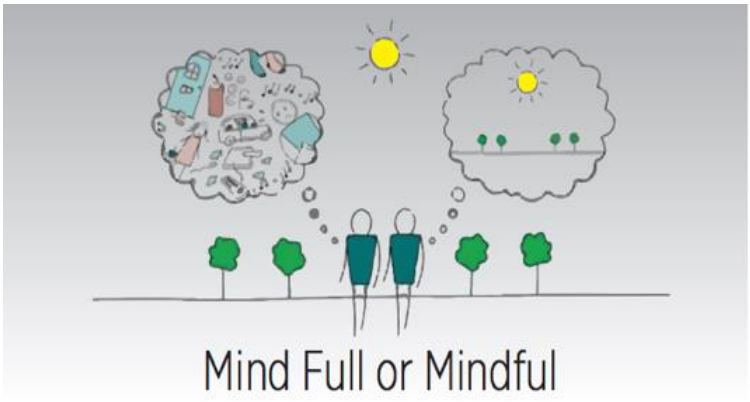
Resources: http://www.mindful.org/a-7-minute-practice-to-shift-out-of-doing-mode/
http://www.mindful.org/mouthfuls-of-mindfulness/

Week 8: Looking Back and Moving Forward
Check in on previous week
Breath
Body
Emotion
Development of heart
Interpersonal
Everyday mindfulness
Mindfulness as a practice:
Tape: Silence with bells with Jon Kabot-Zinn
Practice:

5. Continue focusing on breath as anchor & noticing thoughts and emotion without judgement, making mindfulness a habit
6. Incorporate mindfulness into daily habits, relationships, and as coping mechanism
7. Consider supports needed to continue practice (app, friend, etc.)

Resources: http://www.mindful.org/9-ways-mindfulness-reduces-stress/
http://www.mindful.org/losing-control-can-make-happier/
http://www.mindful.org/practice-art-being-present/
Adapted from Mindful Schools Fundamentals course
(http://www.mindfulschools.org/training/mindfulness-fundamentals/)

Teachers: Free Mindfulness Training coming to a school near you!



Day, time, dates, location

Day, time, dates, location

Day, time, dates, location

Mindfulness focuses on noticing the present moment as it occurs, without judgement.

Mindfulness may be the "antidote to the disease of twenty-first century life and its attendant and every increasing pull toward multi-tasking and 24/7 connectivity" (Cullen, 2011, p. 189)

This free mindfulness training is offered with the district Wellness program and is a study to determine the effects of mindfulness training on teachers' perception of stress, self-efficacy, and mindfulness. Training is 8-weeks long and involves 30 minutes training per week.

Participating teachers will be asked to complete an electronic survey before, immediately after and three weeks after the training. Demographic data will be collected for descriptive purposes only. Survey responses will be completely confidential and will be reported in summary form only. Teacher names will not be collected on the survey.

For questions and to sign up, please contact
Sharon Walker: sharon.walker@kckps.org or Stephanie Conner: stephanie.conner@kckps.org

Sample email for solicitation of participants in the mindfulness training study

Please see information below and attached flyer for information on upcoming mindfulness training courses at a school near you.

Mindfulness focuses on noticing the present moment as it occurs, without judgement. Mindfulness practice involves increasing attention and awareness to both inner and outer worlds.

Mindfulness training courses are offered in cooperation with the District Wellness program and are a part of a study to determine the effects of mindfulness training on teachers' perceptions of stress, self-efficacy, and mindfulness.

Offered in small group sessions at (locations, dates, and times), mindfulness training will be 8 weeks long with 30-minute sessions each week. The course will provide opportunities for teachers to learn about and practice mindfulness.

This mindfulness training opportunity is voluntary and free of charge. Participating teachers will be asked to complete an electronic survey before, immediately after, and three weeks after the training. Demographic data will be collected for descriptive purposes only. Survey responses will be completely confidential and will be reported in summary form only. Teacher names will not be collected on the survey.

The completion of the survey will indicate your consent to participate and permission to use the information provided by you in the research study. You also have the option to not answer any question that may make you feel uncomfortable or discontinue participation in mindfulness training at any time.

Thank you for your support of this study, and for taking the opportunity to learn mindfulness practice. Please let me know if you have any questions.

Best regards,
Sharon Walker

sharon.walker@kckps.org

Written Consent Form

Thank you for interest and support of this study.

The purpose of the study is to determine the extent to which there is a difference in teachers' perception of stress, sense of teacher self-efficacy, and mindfulness after and 8-week mindfulness training course. The course is 30 minutes per week and will cover practice and topics of mindfulness including breath, thoughts, body, emotion, open-heartedness, social, and everyday mindfulness. You may stop training at any point in time for any reason.

A survey will be collected before, after, and three weeks after mindfulness training. The survey includes 10 questions on perception of stress, 12 questions on teacher sense of self-efficacy, and 24 questions on the 5 facets of mindfulness. The survey is electronic and will take about 15 minutes.

Answers will be confidential and combined with the responses of other participants in summary form. Study participants will be identified by numeric code only. Demographic data is collected solely for descriptive purposes. Information reported will not include individual's names or school districts.

The completion of the survey will indicate your consent to participate and permission to use the information provided by you in the research study. You also have the option to not answer any question that may make you feel uncomfortable or discontinue participation in mindfulness training at any time.

If you agree to participate in this research, please sign and date below.

_____ _____

Participant Date

Thank you for your participation!

Appendix J: IRB Approval

Baker University Institutional Review Board

December 15, 2016

Dear Sharon Walker and Dr. Rogers:

The Baker University IRB has reviewed your research project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at EMorris@BakerU.edu or 785.594.7881.

Sincerely,

Erin R. Morris

Erin Morris PhD
Chair, Baker University IRB

Baker University IRB Committee
Joe Watson PhD
Nate Poell MA
Susan Rogers PhD
Scott Crenshaw

Appendix K: Permission to Conduct Study Letters

Permission letter, Director of Assessments

Data Collection and Utilization Agreement

The [redacted] Public Schools (hereinafter referred to as the District) and Sharon Walker have entered into an agreement under which Ms. Walker shall be given permission to provide voluntary training for staff outside of the contracted school day and collect and use data using various instruments.

Ms. Walker will adhere to all provisions for confidentiality and protection of student and teacher information as described in the U.S. Department of Education's Protection of Pupil Rights Amendment (PPRA) (20 U.S.C. § 1232h; 34 CFR Part 98) and The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99).

Data collected may be used for post-secondary publications as long as no identifiable information regarding any District student, teacher, or school shall be released by Ms. Walker in any report.

Sharon Walker
Sharon Walker

Board of Education

Sharon Walker
Printed Name

[redacted], DIRECTOR DERA
Printed Name

1/20/17
Date

1/20/17
Date

Permission letter, Employee Wellness Coordinator

December 8, 2017

To Whom it May Concern:

As the Employee Wellness Coordinator I am working with Sharon Walker on offering Mindfulness Training to the teachers of [redacted] Public Schools. While this activity is not sanctioned by the school district, I will support the training as it aligns with the goals of the Employee Wellness Program. I will help communicate and garner participation for this training. It will be promoted as a voluntary opportunity for employees of the District to receive free training that can have a positive impact on their overall

Healthy Regards,

[redacted]
Employee Wellness Coordinator
[redacted] Public Schools

[redacted] Wellness Coordinator | Phone: [redacted] | Email: [redacted] org | [redacted] Central Office [redacted]

Appendix L: Participant Consent form

Written Consent Form

Thank you for interest and support of this study.

The purpose of the study is to determine the extent to which there is a difference in teachers' perception of stress, sense of teacher self-efficacy, and mindfulness after and 8-week mindfulness training course. The course is 30 minutes per week and will cover practice and topics of mindfulness including breath, thoughts, body, emotion, open-heartedness, social, and everyday mindfulness. You may stop training at any point in time for any reason.

A survey will be collected before, after, and three weeks after mindfulness training. The survey includes 10 questions on perception of stress, 12 questions on teacher sense of self-efficacy, and 24 questions on the 5 facets of mindfulness. The survey is electronic and will take about 15 minutes.

Answers will be confidential and combined with the responses of other participants in summary form. Study participants will be identified by numeric code only. Demographic data is collected solely for descriptive purposes. Information reported will not include individual's names or school districts.

The completion of the survey will indicate your consent to participate and permission to use the information provided by you in the research study. You also have the option to not answer any question that may make you feel uncomfortable or discontinue participation in mindfulness training at any time.

If you agree to participate in this research, please sign and date below.

_____ _____

Participant Date

Thank you for your participation!