International Journal of Learning, Teaching and Educational Research
Vol. 22, No. 2, pp. 358-376, February 2023
https://doi.org/10.26803/ijlter.22.2.20
Received Nov 2, 2022; Revised Feb 23, 2023; Accepted Feb 28, 2023

Mindful Educators: Compassion, Community, and Adaptability Are Key

Molly S. Dunn
Notre Dame of Maryland University, Baltimore, Maryland

Kristine E. Larson
Notre Dame of Maryland University, Baltimore, Maryland

Abstract. K-12 teachers encounter numerous stressors in their profession, placing them at risk of job-related stress and burnout. While the concept of mindfulness has made inroads in teacher professional development, there are few qualitative studies of teachers' experiences in this area. This study examined a mindfulness-based intervention (MBI) known as Cultivating Awareness and Resilience in Education (CARE). Employing a qualitative case study methodology, this study investigated three teachers' experiences, perceptions, and utilization of MBI with a five-month follow-up. This examination was guided by the collection of data from participant interviews, observations, and document analysis, and data were analyzed using inductive analysis. Findings revealed that participants experienced both short- and long-term benefits of compassion, community, and adaptability. Specifically, compassion directed towards others proved most powerful to the participants from the initial retreat. Moreover, the ability to sustain a mindfulness practice required two components: community support and the ability to adapt mindfulness protocols to one's specific circumstances. This research also highlights two additional questions for further consideration: whether mindfulness impacts a teacher's actual teaching efficacy and to what extend is mindfulness a precursor to relational trust. The study concludes with recommendations on strengthening the use of MBIs as an element of professional development. It also identifies future research on how MBIs might further influence teacher performance in the classroom and beyond.

Keywords: community; compassion; mindfulness; professional development; teacher stress

1. Introduction

Teaching is a profession long characterized by high levels of stress, burnout, and emotional exhaustion (Harmsen et al., 2018; Newberry & Allsop, 2017; Steiner & Woo, 2021). Teachers often experience an insular focus on daily events, isolation

from other adults, and limited opportunities for reflection (Chang, 2009), elements which take a significant toll. Similarly, due to the secluded nature of the profession, teachers are at a risk of feeling unsatisfied and depleted as they privately struggle with anxieties (Sahai et al., 2020). Often, teacher-specific stressors are often compounded over the course of one school day, resulting in an increasingly troublesome modern-day teaching workplace. Greenberg et al. (2016) note that policy and teacher training programs currently allocate limited attention to teacher stress and burnout.

The difficulties faced by teachers impact the wider educational workforce. The dangers of stress on the teaching workforce is measurable through teacher attrition and teacher shortage statistics. In the United States, for example, 25% of beginner teachers leave the profession before their third year of experience, and over 40% leave within the first five years of teaching (National Center for Education Statistics, 2004). Further, following the COVID-19 pandemic, these numbers have significantly increased. Nearly one in four teachers said that they were likely to leave their jobs by the end of the 2020–2021 school year, compared with, on average, the one in six teachers who were likely to leave prior to the pandemic. In addition, a staggering 55% of U.S. educators have revealed they now consider leaving the profession earlier than they had planned (National Educational Association, 2022). Alarmingly, an even higher proportion of teachers presented regular job-related stress and indications of depression than the general adult population (Steiner & Woo, 2021). Furthermore, according to Harmsen et al. (2018), stress consistently ranks as the primary reason for teacher dissatisfaction and leaving the profession. For those teachers who choose to remain, stress may lead to classroom ineffectiveness and eventual burnout (Bottiani et al., 2019; Herman et al., 2020).

The potential efficacy of using mindfulness-based interventions (MBIs) with classroom teachers to tackle occupational stress and burnout has recently been explored (Emerson et al., 2017; von der Embse et al., 2019). Mindfulness is a method of employing attention and awareness free from emotional reaction or judgment (Kabat-Zinn, 2003). Several mindfulness interventions (e.g., Beshai et al., 2016; Flook et al., 2013; Jennings et al., 2017; Schussler et al., 2018) have demonstrated promising outcomes for teachers. However, despite promising results, we know very little about the feasibility of mindfulness as a professional development (PD) protocol, and we know even less about teachers' perceptions and assumptions of these interventions.

This study positions itself at the intersection of three noteworthy phenomena: 1) the significant problem of teacher stress, 2) a novel, non-curricular professional development (PD) intervention in the form of mindfulness, and 3) a qualitative methodology to further explore this form of PD. As mentioned, several quantitative studies have demonstrated the promising effects of MBI on teachers, with samples ranging from 18 participants to 89 participants (see: Beshai et al. [2016] n = 89; Flook et al. [2013], n = 18; Franco et al. [2010], n = 36; Frank et al. [2015], n = 68; Jennings et al. [2013], n = 50; Poulin et al. [2008], n = 44; and Taylor et al. [2016], n = 56). However, detailed qualitative analyses of teachers'

experiences with these forms of PD protocols are absent in the literature (cf. Dariotis et al., 2017; Schussler et al., 2019; Schussler et al., 2018, Schussler et al., 2015; Sharp & Jennings, 2016). To provide contextual meaning to numerical data and to examine teachers' experiences and evidence-of-use, we implemented a well-established MBI (CARE: Cultivating Awareness and Resilience in Education). This approach is consistent with the National Institute of Health and the Department of Health and Human Services' recent calls for "n-of-1 studies" that balance RCTs by providing information about how interventions impact individuals (Van Ness et al., 2017). As such, qualitative research enables a closer examination of "process-oriented data" generated by the participants themselves (Dariotis et al., 2017). Furthermore, CARE concepts can be used to reflect on key assumptions of mindfulness as an aspect of teacher PD (Figure 1), which can inform both the researcher and practitioner.

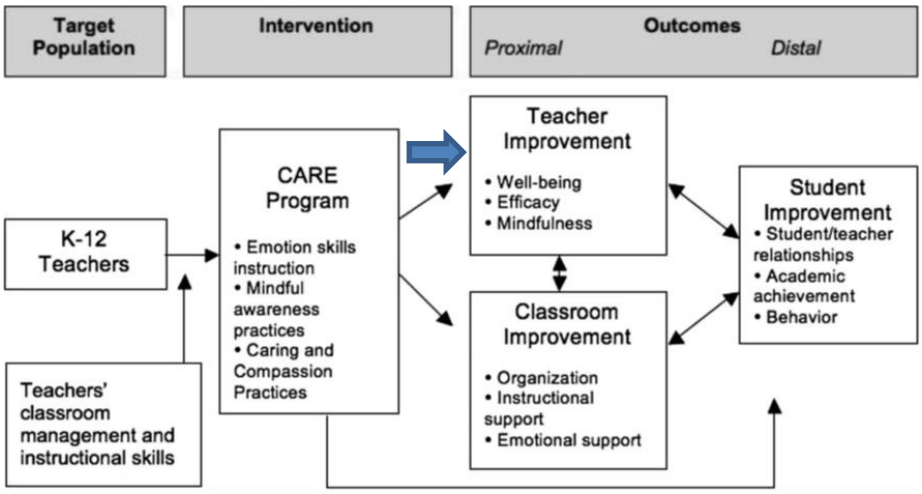

Figure 1: Conceptual Framework of CARE Intervention (Jennings et al., 2013)

2. Methods

A case study analysis using interviews, observations, and document analysis guided this examination. An analysis of data followed interpretive research traditions with respect given to emergent design, multiple perspectives, and inductive analysis (Creswell, 2003; Merriam, 1998; Stake, 1995; Yin, 2014). Research questions (RQ1: How do teachers perceive the MBI? RQ2: How do teachers describe the influence of the MBI? RQ3: How do RQ1 and RQ2 findings impact the conceptual framework?) and the intervention's conceptual framework (Figure 1) informed the initial levels of code. The qualitative software program NVivo and iterative thematic mapping formed all subsequent levels of code. "Thick descriptions" (Lincoln & Guba, 1985; Stake, 1995) were used to depict participants' expectations, experiences, and evidence of use. Member checks, triangulation, audit trails, and peer review were utilized to ensure external validity (Merriam, 1998). The data included three sources: a) extensive interviews with the participants in the week immediately following the retreat and a five-month follow-up; b) document analysis of all materials related to the retreat (participant handbooks, facilitator handbooks, CARE promotional materials and website, university and district PD offerings); and c) participant observation over

the retreat itself. CARE included a three-day retreat at a mid-Atlantic university in the United States. The Friday evening session lasted three hours, and the Saturday and Sunday sessions lasted six hours, creating a total of 15 hours. (For greater detail into the CARE curriculum, see Table 1). Eighteen teachers participated in the weekend retreat (14 females and four males). The teachers differed in terms of age, grade level and subject taught, and years of teaching experience, forming a diverse group. All participants joined the retreat voluntarily and received the intervention free of charge. The sample for this case study included a female elementary third-grade teacher ("Teacher A"), a male middle school teacher ("Teacher B"), and a female high school teacher ("Teacher C").

These three teachers were purposively selected as they represented a variety of experiences with mindfulness. Teacher C reported that she was new to the concept and even held reservations about it. Teacher B said that he possessed considerable prior knowledge and had experience leading retreats in the area. Teacher A reported that she was just beginning to take part in mindfulness activities but wished to understand it better in order to spread the method to others. Furthermore, participants represented diverse cultural and global backgrounds: Teacher A was a White American female, Teacher B a Black male, originally from South Africa, and Teacher C a Hispanic female, originally from Mexico. Although we purposefully sought variation between the participants, our purpose was not to generalize. In the end, the variables accumulated to provide "rich perspectives" (Stake, 1995) on how each individual incorporated (or struggled to incorporate) the experience into their lives.

Table 1: CARE Program Components (Jennings et al., 2013)

Emotion Skills Instruction	**Mindfulness/Stress Reduction Practices**	**Compassion Practices**
(Approximately 40%)	(Approximately 40%)	(Approximately 20%)
1. Introduction to emotions, purpose, universal expression, and relevant brain research. 2. How emotions affect teaching and learning. 3. Didactic information about "uncomfortable" or negative emotions. 4. Didactic information about "comfortable" or positive emotions. 5. Exploring bodily awareness of emotions. 6. Exploring individual differences in emotional experiences. 7. Practice using mindful awareness activities and reflection to recognize and manage strong emotions.	1. Body awareness reflection. 2. Basic breath awareness practices. 3. Mindfulness of thought and emotion practices. 4. Mindful movement practices (standing, walking, stretching, centering). 5. Practice maintaining mindful awareness in front of a group. 6. Role play to practice mindfulness in the context of a strong emotion related to a challenging classroom situation.	1. "Caring practices"—a series of guided reflections focused on caring for the self, a loved one, a colleague, and challenging person. 2. Mindful listening partner practices—one person reads a poem or talks about a problem while the partner listens mindfully while practicing presence and acceptance.

Existing randomized controlled trials of CARE tested theoretical assumptions (Figure 1) using the hypothesis that teachers who received CARE would present improvements in well-being, efficacy, and mindfulness (Jennings et al., 2011, 2013, 2017). However, even with these positive data, the relationships between the underlying mechanisms remained to be seen; in particular, the process of the ways in which the intervention components functioned to produce the theorized outcomes. Therefore, this study focused on a very small aspect of the conceptual framework (see Figure 1: the thick arrow leading from the intervention "CARE program" to the proximal outcome of "Teacher Improvement"). In addition to exploring how an intervention may produce theorized outcomes, it was also important to examine how teachers perceived the intervention. Before researchers examine how MBIs impact classrooms and students (the last box), we must first understand how, why, and to what extent (if at all) such programs impact the very first link in the chain: the teacher.

3. Findings

From individual cases and cross-case analysis we derived a set of findings in response to the study's main research questions (i.e., perceptions of the intervention, influences of the intervention, and conceptualizations of the framework). The findings are presented below.

3.1 Teachers' Perceptions of MBI

Interestingly, the teachers commonly viewed compassion as the most effective aspect of CARE. Although the compassion perceptions were experienced and articulated differently by each participant, each teacher demonstrated care for others, as opposed to a focus on oneself. Table 1 shows these compassion protocols included both "caring practices" and "mindful listening." Caring practices comprised a series of guided reflections (also known as "loving kindness meditation") which taught to send caring thoughts first to oneself, then to a loved one, a colleague, and, finally, a challenging person. Further, mindful listening practices were carried out with one person speaking while a partner listened mindfully while practicing non-judgmental presence and acceptance.

Teacher C (who began the intervention as the "Skeptic") was the most vocal in her appreciation of the compassion practices. She spoke about these protocols at length in her interviews. She remembered the "loving kindness" meditation as the most helpful to her personally and as the style of practice that made her feel the most at peace. This meditation begins with the participant wishing peace, health, and happiness upon themselves, then on an individual they love, a "neutral" person, and finally, on someone with whom they are experiencing acrimony (CARE Participant Manual, Garrison Institute, 2014). For Teacher C, thinking of others and sending them positive thoughts translated to a more open mind—a consideration that other people "maybe are doing their best"—and led to a greater feeling of personal well-being. She wistfully opined that "it's interesting because normally I wouldn't be saying those [caring] things, but they felt so good when I was doing them." Furthermore, at the five-month follow-up, Teacher C described how the mindful listening practices "permanently marked" her, opened her up to the full extent of the retreat's benefits, and helped her remember minute details

about her colleagues' lives even months later. Indeed, during the retreat, the first author observed that the experience left Teacher C feeling engaged and at peace.

Another compassion protocol included the reflection upon a memory of being truly cared for and loved. Teacher B (who began the intervention as the "Mystic"), enjoyed reflecting upon a memory of being loved and expressing gratitude for life events. He spoke of how these practices reminded him of both his grandmother and his upbringing in South Africa, where such reflections were built into both his spirituality and worldview. When asked if these practices ever got old for him, he said, "No, because I feel like I can do this ten times a day. Every time I'm doing it, it's influenced by where I'm at emotionally, so it's never going to be the same." Furthermore, he believed the gratitude practice was encompassing and universally powerful and wished to introduce it to his middle school students "because the kids at this age, they are so tender; you can still reach them with kindness." While on the retreat, he learned about a research project on compassion that piqued his interest—he "had to go read more." This research inspired him to extend his classroom Zen Moment (discussed later) to include a compassion component for students. This compassion component also sparked the ideation of a mindfulness curriculum that he planned to pilot with a co-teacher during an extracurricular slot the following school year.

Teacher A (who began the intervention as the "Zealot") spoke of an amalgamation of all the "good outward positive thinking" stoked by CARE as being most impactful. "You're thinking of yourself, but then you're also starting to think about others and your impact on the world and the impact you can have on people." She spoke of a newfound awareness: she could "send positive vibes," "project mindfulness onto others," and "infect the masses" with this new way of existing in the world. Such outward-focused mindfulness was a revelatory moment for Teacher A, who had previously thought of mindfulness as an individual activity; she now saw it as a conduit for the profound impact she can have on others. Furthermore, the teachings on compassion toward her own emotional state resonated with Teacher A. After CARE, she spoke of taking a compassionate approach to her own emotions rather than trying to fix or disregard them: "I feel like positively channeling what I'm thinking was really helpful to me."

3.2 Influences of the MBI as Described by the Teachers

At the five-month follow-up, all three teachers revealed they had continued practicing a form of a mindfulness after the initial CARE retreat. However, the ways in which they did so varied greatly. Teacher C and two other CARE-attending colleagues from her high school formed an after-school meditation group that met every Monday, Wednesday, and Friday for 20 minutes. Teacher C talked about how, in the weeks following the retreat, the general consensus among her colleagues was "it's great, but I don't know if we can keep it up." Indeed, the CARE participant manual recognizes this issue and provides participants with guidance on continuing mindfulness practices after completing the retreat (CARE participant manual, Garrison Institute, 2014).

A supportive, caring group was important for Teacher C to continue what she learned at CARE. "I feel like if you are doing it by yourself … and if one day it didn't work, you can get disappointed and that disappointment can get you to stop doing the activity." This supportive element propagated an accountability that was important for her. Furthermore, the group meetings fit with Teacher C's schedule; they were short and easily accessible. Finally, besides supporting each other with their mindfulness practice, the group also provided an interesting social component. Regarding the social component, Teacher C revealed:

> "*We do that practice [mindfulness protocols learned at CARE, e.g., breathing, loving-kindness meditation, etc.] which is really helpful, but I also believe that the community that we have created after that session has helped a lot. We know that we're there for each other. I cannot say what has a bigger impact, if it's that social component or if it's the mindfulness, I really cannot say.*"

Teacher B stated that prior to the CARE retreat, he led a "Zen Moment" at the beginning of every class. When Teacher B's seventh grade students entered his classroom each period, the room was silent and darkened. Teacher B would ask for a volunteer to ring the meditation chime, and all students closed their eyes. After finishing this mindfulness session, Teacher B would ask if anyone had a reflection. "Usually it's two minutes, but sometimes it's six or seven minutes. If I see the kids are really in it, I'm not going to disturb them." Teacher B explained that the format of the "Zen Moment" was flexible, but that such flexibility gave students time to relax their nervous systems and focus their minds for the class ahead. He explained that this pause "worked wonders" on classroom discipline and also helped him impart the key curricular takeaways of the day.

After CARE, Teacher B's "Zen Moment" gained a student-oriented compassion component. At the five-month follow-up, Teacher B had weaved into his "Zen Moment" a chance for students to write about what was troubling them after they meditated. He asked students to journal on these experiences. Outside of class time, Teacher B would then meet up with any students who had expressed challenges in their journal to help them talk through the problem either during the lunch hour, during study periods, or any other downtime that they shared. He would then tell the student his own life story and give examples from his childhood growing up in South Africa within the Zulu culture, and how such a background primed him to "take in and help diffuse" others' trouble. He mentioned the compassion component of CARE, along with the further research he put into it, as sparking this newfound compassionate Zen Moment that extended to his students.

> "*Those 12-year-olds are calm for the entire time. The fact that I can deliver my directions, I can inspire them about a topic that I want to teach, the way I want to do it without being disturbed, without wrestling with the kids, shushing them … that to me is my power. And it's the power of mindfulness.*"

Finally, Teacher A kept up with her mindfulness practice but in a much different way. Unlike the other two participants, she maintained her practice largely outside of school hours. Teacher A found groups within the county (specifically

four separate ones with four separate cohorts) for comradery, practice, and networking. She completed a Yoga4School certification so she could teach yoga to her third graders. That spring, during standardized testing, she taught them deep breathing, self-massages, mindful walking, and brain breaks.

> *"I definitely had some surprises with some of my friends that I thought would not pass [the standardized test]. And they ended up squeaking by, and I think it could be because of those techniques that they used during their test to take a break."*

During this five-month period, she also attended an eight-week Mindfulness Based Stress Reduction (MBSR) seminar. Teacher A revealed that even though the MBSR protocols were designed to alleviate stress for adults (much like the CARE protocols), she often shared within her cohort ways to bring these strategies into the classroom, therefore "spreading the wealth" to those with whom she came in contact.

Moreover, in the months following the intervention, the original CARE facilitators hosted ad-hoc monthly follow-ups, known as CARE "potlucks." Such follow-ups were not part of the original CARE protocol, but were added due to participant interest. Teacher A attended two of these four potlucks as a way to further her practice; she commented that they were "an opportunity to deepen my personal practice as well as learn ways to weave mindful practices into the classroom." Similarly, she also attended a district-sponsored day long retreat on a nearby farm, made available through the district's teacher PD website. In sum, Teacher A cultivated a continuing mindfulness practice by utilizing CARE and district-wide PD opportunities, as well as outside resources in the form of MBSR and Yoga4School trainings.

3.3 Influence of Findings on Conceptual Framework

Equipped with the knowledge of how the CARE process affected the three participants, it is important to reflect back on the key assumptions of the conceptual framework (Figure 1). Looking at the "Teacher Improvement" box, the participant data primarily reflected two of the three subscales: "Well-being" and "Mindfulness." However, negligible data spoke of "Efficacy," which is related to important PD questions: did these mindfulness practices have any impact upon the teachers' actual teaching? Did all this time spent developing themselves as mindful educators do anything for their students? Such is to say, these types of mindfulness PD opportunities potentially run the risk of weak implementation if teachers focus solely on themselves and their own mindfulness growth, perhaps even at the expense of their students, classrooms, and curricular preparation.

All three teachers extensively reported on their well-being and mindfulness. Only Teacher B (the seasoned mindfulness practitioner termed the "Mystic") stated that CARE directly helped to improve his teaching efficacy, and his examples fall into the "Classroom Improvement" box of the model which includes "Organization," "Instructional support," and "Emotional support." From Teacher B's data, his "Zen Moment" led to classroom improvement through greater organization ("It does wonders in crafting how I'm going to give the big picture") and the

emotional support of students when he reaches out to them based on their journaling.

The other two participants provided more indirect examples of how their teaching efficacy improved. At the five-month follow up, Teacher C revealed she does not "get as upset about things" that happen in her classroom. She also spoke of sending the "loving kindness" meditation to one of her most challenging students the week after the CARE retreat and how surprisingly well-behaved he was in that particular class. From an efficacy standpoint, a teacher's ability to help a challenging student likely improves the student-teacher relationship and can potentially also improve the overall class environment. Teacher A, likewise, speculated how the CARE "mindful walking" techniques that she taught her third graders may have helped some of them do better on their state exams, stating that she "definitely had some surprises" with students passing the exam. However, neither Teacher C nor Teacher A really could say how their actual teaching had benefitted as a result of CARE. Given that many researchers have argued that mindfulness improves teaching efficacy, and that the conceptual framework for this study posits the same, these findings provide a bit of a pause.

Even though these findings are somewhat inconclusive with regard to teacher efficacy, this study cannot disregard the efficacy subscale of the conceptual framework. The content knowledge mastery of the teachers likely remained fairly constant over the course of the study. That is, teachers did not fluctuate in their content knowledge or skills related to teaching either the week after the retreat or at the five-month follow-up. These findings could, however, showcase that greater compassion, emotional regulation, and mindfulness may affect some negative efficacy beliefs by creating a more positive mind state for the teacher. In other words, although teachers' mastery remained constant, they may feel more in control of their classroom and hence more competent, given that they feel more emotional control and a compassionate understanding toward others (akin to what Teacher B described as his ability to easily impart knowledge into a receptive classroom).

4. Discussion

From the above findings, we generated three main themes, related them to previous literature, and generated two additional research questions for future studies.

4.1 Compassion as an Anchor

The findings on the importance of compassion and caring practices in a teacher PD setting were not expected. CARE is specifically touted as a mindfulness retreat and as a stress reduction workshop for the individual teacher. Teachers were encouraged to "take CARE" of themselves and tackle the "burnout cascade" (Jennings & Greenberg, 2009) that afflicts so many of their peers (CARE Facilitator Manual, Garrison Institute, 2014) by attending the retreat. The retreat is promoted as an individual intervention for a very stressful job. The three participants enrolled with the expectations to "learn techniques to relax" (Teacher C), "really see what this CARE is all about," (Teacher B) and "learn strategies to cope with

the issues going on within my own life" (Teacher A); not to dispatch "loving kindness" onto those with whom they have less than ideal relationships.

That these three teachers spoke so highly of the outward-focused compassion practices warrants further consideration. These preliminary findings on compassion in mindfulness settings, however, are consistent with other MBI studies, which also included a compassion portion to the protocols. Benn et al. (2012) found that teachers participating in an MBI demonstrate positive increases in patience, empathy, and forgiveness of the self and others. This MBI was similar to CARE in that its content was similar to a MBSR program (mindfulness and emotional regulation) at a scale of 70%. Further, it had a smaller variety of content that was focused on forgiveness, kindness, and compassion. Similarly, teachers in another MBI study demonstrated greater feelings of compassion when looking at pictures of people suffering (Kemeny et al., 2012). Furthermore, in a verbal task, they identified compassion-related terms faster, and identified facial expressions with increased accuracy, which the researchers understood as a core component of empathy. Finally, de Carvalho et al. (2021) found significant improvements in the quality of teachers' social competencies following MBI as perceived by the parents of their students.

Benn et al. (2012) put forth the concept of "relational competence," which they posit deals with measures of empathetic concern and forgiveness as an unanticipated yet welcomed by-product of their MBI study. By enhancing self-awareness, empathy, and emotional regulation, the MBI appeared to set the stage for enhancing relational competence among educators. Additionally, increased compassion afforded the opportunity for participants to clearly perceive others "without the veil of clouded judgments and, as such, may encourage individuals to become kinder and more sensitive to the needs of others" (p. 9). This can be seen in Teacher C's experience with the mindful listening protocols, when she discovered that her colleagues whom she empathetically listened to and who did the same for her "maybe are doing their best," and therefore should be approached with an open mind.

This concept of "relational competence" rings similar to "relational trust" (Bryk & Schneider, 2002), a concept well-studied and documented in the trust-dependent school improvement literature over the past decade (see Bryk et al., 2010; Mischenko et al., 2022; Tschannen-Moran, 2014; Tschannen-Moran & Constantino, 2021; Tschannen-Moran & Gareis, 2017; Tschannen-Moran & Hoy, 2007). Bryk and Schneider (2002) maintain that relational trust is a core component in school improvement, and that by building this trust in school relationships, it can combat the decline of social capital that often plagues schools. According to Bryk and Schneider, relational trust is built on four criteria: competence, integrity, respect, and personal regard for others. Most relevant to this analysis is a personal regard for others, defined as the perception of one going beyond that which is required to care for another person (Bryk & Schneider, 2002). Reading that definition a second time leads one to consider whether "caring for another person" is really an important component of school success. It would seem so. Similarly, the philosophical arguments of Noddings (2013) on the importance of

"natural caring" lend themselves to the relational aspects of which all three study participants spoke. "Natural caring" has at its core a receptivity to those involved in relationships and focuses on what is particular and unique in human relations, as opposed to what is foreign and dividing. Noddings (2013) argues that all people wish to be cared for, and the participants in this MBI study echoed such a standpoint, both during the retreat and in follow-ups afterward.

The findings from this study cannot confirm the relationship between an MBI, tenets of compassion, and the establishment of comprehensive relational trust. These findings do, however, supply evidence to warrant future research. The ways in which MBIs impact personal regard in educational contexts may have implications for research in terms of ways to build relational trust in schools. Indeed, we have known for decades that relational trust is an important component of school success (see Bryk et al., 2010; Mischenko et al., 2022; Tschannen-Moran, 2014; Tschannen-Moran & Constantino, 2021; Tschannen-Moran & Gareis, 2017; Tschannen-Moran & Hoy, 2007), but we know far less about how it is initiated, stoked, and sustained. Future research on MBIs, and especially those with caring and compassion protocols, may profit from an examination of any impact upon projected relational trust.

4.2 Community Needed for Sustainment

Group support and accountability helped the participants comprehensively experience both the initial retreat and the follow-up mindfulness activities. The importance of a community element in teacher mindfulness PD transcended all elements of the study.

The findings in this study align with aspects of the literature on high-quality teacher PD. Research tells us that collaborative and collegial environments are important in developing communities that can encourage and sustain change (Darling-Hammond & Richardson, 2009). Spiteri and Chang-Rundgren (2017) found teachers' collaboration encouraged mutual support and risk-taking when trying new practices. Furthermore, according to Bryk et al. (2010), a trusting environment provides a source for teacher inquiry and reflection, allowing them to promote issues, attempt risks, and deal with dilemmas. This supportive community contributes to a shared culture, to a "we're all in this" mentality of which Teacher C spoke. Garet et al. (2009) speak further of this shared culture: They contend that PD designed for groups, in addition to giving teachers the opportunity to discuss concepts and problems that arise, also contributes to a communal professional ethos, in which teachers develop a mutual understanding of objectives.

The interplay of community and its impact upon trust, similar to the relationship between the aforementioned compassion practices and relational trust, also warrants further consideration. Lieberman and Miller (2008) found that before a community can be established, it is imperative for participants to trust each other. There are numerous ways to initiate the process of community, such as through a book group, a summer institute or, as in the case in this study, a mindfulness retreat over a three-day weekend. These communities of practice are not merely

made of friends or networks of connections, but rather from those who have shared an experience, presumably one that has indelibly "marked" them, as Teacher C noted. Additionally, Bowe and Gore (2017) maintain that bringing together professional learning approaches that encompass collaboration, community, and context will deliver more significant impacts on pedagogy. Researchers investigating the use of trust in building learning communities dedicated to the benefit of student performance may profit from attending to the ways that mindfulness protocols impact upon community development and vice versa.

4.3 Adaptability Needed for Sustainment

The fact that all three participants kept up with some aspect of the MBI practices five months later warrants further inspection. The PD literature predicts that such an episodic approach (a 15-hour weekend retreat) might lead to a "flash in the pan" with mindfulness. All three participants, however, reimagined various mindfulness communities and then relied upon the support of these communities for accountability. Sustaining mindfulness through individual adaptability, then, was another salient theme for all three participants' continuation past the CARE weekend. Indeed, Korthagen (2017) states that when designing the PD process, it is important to focus on teachers' needs, concentrations, prospects, emotions, motivations, and dreams. Similarly, according to Kyriakides et al. (2017), the PD process should satisfy teachers' individual requirements while engaging them in a methodical and motivated process.

It also appeared that keeping up with a mindfulness practice five months after the retreat made CARE an effective PD model for these participants. After the CARE intervention, Teacher C became a thrice-weekly meditator, Teacher B incorporated compassion into his class meditations, and Teacher A joined four different mindfulness groups. These findings are consistent with, and provide confirmation of, the literature on high-quality PD. Almost all literature calls for professional development that is sustained over time (Garet et al., 2009). The episodic and fragmented "sage on a stage" approach does not allow for cumulative learning. Furthermore, Desimone and Garet (2015) and Hawley and Valli (2007) contend that PD should be continuous, involving supplements and support for additional learning, including support from sources outside the school. We know that teachers can fortify their practices by partaking in communities in which they allow themselves enough time to develop standards for collaboration, traverse tensions, and build self-confidence to make predicaments of practice public (Kazemi & Franke, 2004). Moreover, while assessing support structures for teacher professional development, Admiraal et al. (2021) found that the presence of formal and informal groups of teachers who work and learn together greatly enhanced the professional learning of the teachers.

CARE, as a weekend workshop, may not have impacted these teachers if they did not sustain their practice. All three teachers, however, grew their mindfulness practices from the initial retreat to the five-month follow-up. Prenger et al. (2017) emphasize that the motivation of teachers comprises an essential piece at all stages

of their PD. When considering mindfulness PD, it is important to note that since mindfulness presupposes the wellbeing benefits posited in the conceptual framework and literature, *how* teachers practice might not be as essential as the fact *that they even practice at all.*

We know from the PD literature that teachers' thinking is influenced by their knowledge and beliefs. Further, the beliefs people hold are difficult to change (Kennedy, 2019; Kennedy, 2005). In short, teachers hold beliefs and values that justify their current practice. It is the reason why teachers often adapt, rather than wholesale adopt, certain reforms. Teacher adaption over adoption may not always be to PD reformers' or the education community's liking, especially when the adoption of best-practice, research-based protocols is specifically sought. However, an important difference distinguishes mindfulness PD from a typical curricular-focused PD. Teachers did not learn the CARE techniques for their students; rather, they learned these strategies to better manage their own stress, descend the emotional ladder, and take a compassionate stance toward themselves and others (CARE facilitator manual, Garrison Institute, 2014), all with the goal of increasing their effectiveness as a teacher in the long-term. From this perspective, allowing teachers to *adapt* the experience, rather than adopt it, could be a real strength of this form of PD.

5. Implications

This study offers several implications for future research on mindfulness PD. First, it prompts the need for similar research with other MBIs and other populations. Second, it prompts the need for more data that account for the classroom perspective. Third, it prompts an investigation of some of the conceptual issues that were beyond this study's scope, such as the mindfulness "dosage."

First, this research investigated three teachers in a county that boasts both a university and district PD office favorable to the concept of mindfulness. Second, the university houses a research institute dedicated to contemplative sciences. Third, there are several teacher PD offerings on the county's website for teachers to engage with mindfulness principles in the ways that Teacher A most aptly showcased. Not every school district is as "mindfulness-friendly" as this one was. The emerging body of mindfulness PD literature would profit from similar investigations of other teachers in other parts of the educational community to examine whether perceptions and influences of MBIs are relevant across contexts. Such is to say, sitting in contemplative silence as a form of PD might seem perfectly rational for some teachers, but perfectly radical (and disturbing) for others. The desirability of these types of interventions outside of a self-selecting population was never fully attended to in the present study, and thus we simply do not know whether these types of interventions are important to teachers or not.

Second, future investigations of teacher MBIs would benefit from the classroom, or even a student, perspective. This relevant next step could move the field forward and perhaps provide evidence for those who would dismiss MBIs as an unnecessary, time-consuming, self-help distraction. In a relevant quote, Elmore

(2007) asked quite simply, "If it's not teaching and learning, then why are we doing it?" (p. 198). According to Elmore, much of the policy making around PD has only a remote connection to teaching and learning, and much of it even complicates the already busy schedules of teachers by creating "a penumbra of distractions" from the core problems of schooling. It is reasonable to expect that any action of PD should be evaluated in terms of the value it provides. If it fails that standard, then it should bear a very large burden of proof. As such, further research on the association between MBIs and student outcome is warranted.

A third suggestion derives from some defining issues beyond the scope of this project, but in particular the "dosage" or level of mindfulness that is needed to truly create a more mindful individual. Can mindfulness, an esoteric concept that requires skill, patience, and continuous practice, be distilled into a quick and tidy PD session? If so, would the field even wish to incorporate it? Similarly, the intervention studied was a shortened version of the typical CARE protocol, down half the time from 30 to 15 contact hours (at the retreat, several participants expressed concern that even this shortened amount of time was a big commitment). However, despite the shortened protocol, all three teachers had continued with the practice at the five-month follow-up. Perhaps something might be said about this study's shortened intervention weekend, but with continuous and ongoing support structures initiated by teachers themselves, similar to the "mindfulness professional learning communities" (PLCs) all three participants envisioned in their own way. Indeed, mindfulness PLCs at school sites is an exciting field of research for the years ahead.

5. Conclusion

K-12 educators are tasked with creating classrooms that nurture student curiosity and school success. However, those same classrooms also bring stressors that impact the teacher and student. Mindfulness-based interventions (MBIs) may be one way to combat the stressors inherent in the profession and tackle the "burnout cascade" that can lead to costly teacher turnover. However, even with recent growing interest in MBIs, researchers do not have a firm grasp on the ways in which mindfulness PD measures may or may not work for individual teachers. The three teachers in this study have shown that acquiring and nourishing mindfulness practices is a deeply personal, situation-specific, and perhaps even profound process, but they also collectively demonstrated that aspects of compassion, community, and adaptability were important across the board. This research shows a nuanced picture of what MBI facilitators and PD specialists must work with as they attempt to address teacher stress and burnout in the future with the aid of mindfulness. Additionally, this study reflects on an existing conceptual framework for analyzing mindfulness in PD programs, along with factors that facilitate or inhibit it. Regardless of its feasibility as a long-term practice, mindfulness is a novel PD strategy for managing stress and burnout in the workplace. Understanding teachers' perceptions and the factors that shape these perceptions will help researchers document best practices moving forward.

6. Limitations

Methodological limitations are a part of all research, including this study. The study's sample size of three participants was small; therefore, it is important to note that generalizability was not the aim of this study. That said, we recommend a repetition of this study with a higher participant count in order to check the repeatability and the reliability of our findings. Additionally, the sample consisted of a motivated group of self-selecting participants who all went on the retreat weekend at no cost. Furthermore, the first author was present the entire weekend and conducted interviews after functioning as a participant-observer. Understandably, forming a relationship with the interviewer during the retreat could have affected the information that participants decided to share. To ward off this limitation, the first author reiterated an agnosticism to the field of MBI PD and stated that they were simply looking to uncover participants' truest experiences and influences. Finally, this study may have profited from a longer follow-up between data collection to see if these effects persisted. Five months (December to May) is a short amount of time during an academic year. Following these participants over a longer period to examine if their mindfulness practices were continued, cancelled, or modified in any way would have been beneficial. Truer longitudinal scholarship over multiple years would indeed benefit the MBI PD field in the future.

7. References

Admiraal, W., Schenke, W., De Jong, L., Emmelot, Y., & Sligte, H. (2021). Schools as professional learning communities: what can schools do to support professional development of their teachers? *Professional development in education, 47*(4), 684-698. https://doi.org/10.1080/19415257.2019.1665573

Benn, R., Akiva, T., Arel, S., & Roeser, R. W. (2012). Mindfulness training effects for parents and educators of children with special needs. *Developmental Psychology, 48*(5), 1476. https://doi.org/10.1037/a0027537

Beshai, S., McAlpine, L., Weare, K., & Kuyken, W. (2016). A non-randomised feasibility trial assessing the efficacy of a mindfulness-based intervention for teachers to reduce stress and improve well-being. *Mindfulness, 7*(1), 198-208. https://doi.org/10.1007/s12671-015-0436-1

Bottiani, J. H., Duran, C. A., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands, resources, and effective classroom practices. *Journal of School Psychology*, 77, 36-51. https://doi.org/10.1016/j.jsp.2019.10.002

Bowe, J. and Gore, J. (2017). Reassembling teacher professional development: the case for Quality Teaching Rounds. *Teachers and teaching*, *23*(3), 352–366. https://doi.org/10.1080/13540602.2016.1206522

Bryk, A. S., & Schneider, B. H. (2002). *Trust in Schools: A core resource for improvement*. Russell Sage Foundation. https://doi.org/10.1086/382002

Bryk, A. S., Sebring, P. B., Allensworth, E., Luppescu. S., & Easton, J. O. (2010). *Organizing school for improvement: Lessons from Chicago.* University of Chicago Press. https://doi.org/10.7208/chicago/9780226078014.001.0001

Chang, M. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review, 21*(3). https://doi.org/10.1007/s10648-009-9106-y

Creswell, J. W. (2003). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications, Inc. https://doi.org/10.1086/317417

Dariotis, J. K., Mirabal-Beltran, R., Cluxton-Keller, F., Feagans Gould, L., Greenberg, M. T., & Mendelson, T. (2017). A qualitative exploration of implementation factors in a school-based mindfulness and yoga program: Lessons learned from students and teachers. *Psychology in the Schools, 54*(1), 53-69. https://doi.org/10.1002/pits.21979

Darling-Hammond, L., & Richardson, N. (2009). Research review/teacher learning: What matters. *Educational Leadership*, *66*(5), 46-53. https://doi.org/10.54300/454.278

de Carvalho, J. S., Oliveira, S., Roberto, M. S., Gonçalves, C., Bárbara, J. M., de Castro, A. F., ... & Marques-Pinto, A. (2021). Effects of a mindfulness-based intervention for teachers: a study on teacher and student outcomes. *Mindfulness, 12*(7), 1719-1732. https://doi.org/10.1007/s12671-021-01635-3

Desimone, L. M., & Garet, M. S. (2015). Best practices in teacher's professional development in the United States. *Psychology, Society, & Education, 7*(3), pp. 252-263. https://doi.org/10.25115/psye.v7i3.515

Elmore, R. F. (2007). Local school districts and instructional improvement. In W. D. Hawley & D. Rollie (Eds.), *The keys to effective schools: Educational reform as continuous improvement* (pp. 117-137). Corwin Press. https://doi.org/10.4135/9781483329512.n12

Emerson, L. M., Leyland, A., Hudson, K., Rowse, G., Hanley, P., & Hugh-Jones, S. (2017). Teaching mindfulness to teachers: A systematic review and narrative synthesis. *Mindfulness*, *8*. https://doi.org/10.1007/s12671-017-0691-4

Flook, L., Goldberg, S. B., Pinger, L., Bonus, K., & Davidson, R. J. (2013). Mindfulness for teachers: A pilot study to assess effects on stress, burnout, and teaching efficacy. *Mind, Brain, and Education, 7*(3), 182-195. https://doi.org/10.1111/mbe.12026

Franco, C., Mañas, I., Cangas, A.J., Moreno, E., & Gallego, J. (2010). Reducing teachers' psychological distress through a mindfulness training program. *The Spanish journal of psychology, 13*(2), 655-666. https://doi.org/10.1017/s1138741600002328

Frank, J. L., Reibel, D., Broderick, P., Cantrell, T., & Metz, S. (2013). The effectiveness of mindfulness-based stress reduction on educator stress and well-being: Results from a pilot study. *Mindfulness*, 1-9. https://doi.org/10.1007/s12671-013-0246-2

Frank, J. L., Reibel, D., Broderick, P., Cantrell, T., & Metz, S. (2015). The effectiveness of mindfulness-based stress reduction on educator stress and well-being: Results from a pilot study. *Mindfulness, 6*(2), 208-216. https://doi.org/10.1007/s12671-013-0246-2

Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945. https://doi.org/10.1007/s12671-013-0246-2

Garrison Institute. (2014). *Facilitator Manual: CARE for Teachers (Cultivating Awareness and Resilience in Education)*.

Garrison Institute. (2014). *Participant Workbook: CARE for Teachers (Cultivating Awareness and Resilience in Education)*.

Greenberg, M. T., Brown, J. L., & Abenavoli, R. M. (2016). Teacher stress and health effects on teachers, students, and schools. *Edna Bennett Pierce Prevention Research Center, Pennsylvania State University*, 1-12.

Harmsen, R., Helms-Lorenz, M., Maulana, R., & Van Veen, K. (2018). The relationship between beginning teachers' stress causes, stress responses, teaching behaviour and attrition. *Teachers and Teaching, 24*(6), 626-643. https://doi.org/10.1080/13540602.2018.1465404

Hawley, W. D., & Valli, L. (2007). Design principles for learner-centered professional development. In W. D. Hawley & D. Rollie (Eds.), *The keys to effective schools:*

Educational reform as continuous improvement (pp. 117-137). Corwin Press. https://doi.org/10.4135/9781483329512.n8

Herman, K. C., Reinke, W. M., & Eddy, C. L. (2020). Advances in understanding and intervening in teacher stress and coping: The Coping-Competence-Context Theory. *Journal of school psychology*, *78*, 69-74. https://doi.org/10.1016/j.jsp.2020.01.001

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*, 491-525. https://doi.org/10.3102/0034654308325693

Jennings, P. A., Brown, J. L., Frank, J. L., Doyle, S., Oh, Y., Davis, R., Rasheed, D., DeWeese, A., DeMauro, A. A., Cham, H., & Greenberg, M. T. (2017). Impacts of the CARE for Teachers program on teachers' social and emotional competence and classroom interactions. *Journal of Educational Psychology, 109*(7), 1010. https://doi.org/10.1037/edu0000187

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly, 28*(4), 374-390. https://doi.org/10.1037/spq0000035

Jennings, P. A., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2011). Improving classroom learning environments by cultivating awareness and resiliency in education (CARE): Results of two pilot studies. *Journal of Classroom Interactions, 46*(1), 37-48. https://doi.org/10.1037/spq0000035

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*(2), 144-156. https://doi.org/10.1093/clipsy.bpg016

Kazemi, E., & Franke, M. L. (2004). Teacher learning in mathematics: Using student work to promote collective inquiry. *Journal of mathematics teacher education, 7,* 203-235. https://doi.org/10.1023/b:jmte.0000033084.26326.19

Kemeny, M. E., Foltz, C., Cavanagh, J. F., Cullen, M., Giese-Davis, J., Jennings, P., Rosenberg, E. L., Gillath, O., Shaver, P. R., Wallace, B. A., & Ekman, P. (2012). Contemplative/emotion training reduces negative emotional behaviour and promotes prosocial responses. *Emotion*, *12*(2), 338. https://doi.org/10.1037/a0026118

Kennedy, M. M. (2005). *Inside teaching*. Harvard University Press. https://doi.org/10.4159/9780674039513

Kennedy, M. M. (2019). How we learn about teacher learning. *Review of Research in Education*, *43*(1), 138–162. https://doi.org/10.3102/0091732X19838970

Korthagen, F. (2017). Inconvenient truths about teacher learning: Towards professional development 3.0. *Teachers and teaching*, *23*(4), 387-405. https://doi.org/10.1080/13540602.2016.1211523

Kyriakides, L., Christoforidou, M., Panayiotou, A., & Creemers, B. P. M. (2017). The impact of a three-year teacher professional development course on quality of teaching: Strengths and limitations of the dynamic approach. *European Journal of Teacher Education*, *40*(4), 465-486. https://doi.org/10.1080/02619768.2017.1349093

Lieberman, A., & Miller, L. (Eds.). (2008). *Teachers in professional communities: Improving teaching and learning*. Teachers College Press. https://doi.org/10.1007/s10833-008-9095-5

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage. https://doi.org/10.1016/0147-1767(85)90062-8

Merriam (1998). *Qualitative research and case study applications in education*. Jossey Bass. https://doi.org/10.1016/b978-0-08-044894-7.01532-3

Mischenko, P. P., Nicholas-Hoff, P., Schussler, D. L., Iwu, J., & Jennings, P. A. (2022). Implementation barriers and facilitators of a mindfulness-based social emotional learning program and the role of relational trust: A qualitative study. *Psychology in the Schools*, *59*(8), 1643–1671. *Portico*. https://doi.org/10.1002/pits.22724

National Center for Education Statistics (2004). *Teacher attrition and mobility: Results from the teacher follow-up survey, 2000-1.* U.S. Government Printing Office.

National Educational Association (2022, January 31). *Poll results: Stress and burnout pose threat of educator shortages*. https://www.nea.org/sites/default/files/2022-02/NEA%20Member%20COVID-19%20Survey%20Summary.pdf

Newberry, M., & Allsop, Y. (2017). Teacher attrition in the USA: The relational elements in a Utah case study. *Teachers and Teaching, 23*(8), 863-880. https://doi.org/10.1080/13540602.2017.1358705

Noddings, N. (2013). *Caring: A relational approach to ethics and moral education.* Univ of California Press. https://doi.org/10.1525/9780520957343

Poulin, P. A., Mackenzie, C. S., Soloway, G., & Karayolas, E. (2008). Mindfulness training as an evidenced-based approach to reducing stress and promoting well-being among human services professionals. *International Journal of Health Promotion and Education, 46*(2), 72-80. https://doi.org/10.1080/14635240.2008.10708132

Prenger, R., Poortman, C. L., & Handelzalts, A. (2017). Factors influencing teachers' professional development in networked professional learning communities. *Teaching and teacher education*, *68*, 77-90. https://doi.org/10.1016/j.tate.2017.08.014

Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., Oberle, E., Thomson, K., Taylor, C., Harrison, J. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology, 105*(3), 787. https://doi.org/10.1037/a0032093

Sahai, S., Ciby, M. A., & Kahwaji, A. T. (2020). Workplace isolation: A systematic review and synthesis. *International Journal of Management (IJM), 11*(12), 2745-58. https://doi.org/10.34218/ijm.11.12.2020.257

Schussler, D. L., DeWeese, A., Rasheed, D., DeMauro, A. A., Doyle, S. L., Brown, J. L., ... & Jennings, P. A. (2019). The relationship between adopting mindfulness practice and reperceiving: A qualitative investigation of CARE for teachers. *Mindfulness, 10*(12), 2567-2582. https://doi.org/10.1007/s12671-019-01228-1

Schussler, D. L., Deweese, A., Rasheed, D., Demauro, A., Brown, J., Greenberg, M., & Jennings, P. A. (2018). Stress and release: Case studies of teacher resilience following a mindfulness-based intervention. *American Journal of Education, 125*(1), 1–28. https://doi.org/10.1086/699808

Schussler, D. L., Jennings, P. A., Sharp, J. E., & Frank, J. L. (2016). Improving teacher awareness and well-being through CARE: a qualitative analysis of the underlying mechanisms. *Mindfulness*, *7*, 130–142. https://doi.org/10.1007/s12671-015-0422-7

Sharp, J. E., & Jennings, P. A. (2016). Strengthening teacher presence through mindfulness: What educators say about the Cultivating Awareness and Resilience in Education (CARE) program. *Mindfulness*, *7*, 209–218. https://doi.org/10.1007/s12671-015-0474-8

Spiteri, M., & Chang-Rundgren, S. N. (2017). Maltese primary teachers' digital competence: implications for continuing professional development. *European Journal of Teacher Education*, *40*(4), 521-534. https://doi.org/10.1080/02619768.2017.1342242

Stake, R. E. (1995). *The art of case study research*. Sage. https://doi.org/10.2307/329758

Steiner, E. D., & Woo, A. (2021). Job-related stress threatens the teacher supply. *Rand Corporation.* https://doi.org/10.7249/rra1108-1

Taylor, C., Harrison, J., Haimovitz, K., Oberle, E., Thomson, K., Schonert-Reichl, K., & Roeser, R.W. (2016). Examining ways that a mindfulness-based intervention reduces stress in public school teachers: A mixed-methods study. *Mindfulness, 7*(1), 115–129. https://doi.org/10.1007/s12671-015-0425-4

Tschannen-Moran, M. (2014). *Trust matters: Leadership for successful schools*. John Wiley & Sons. https://doi.org/10.1007/978-94-017-8014-8_3

Tschannen-Moran, M., & Constantino, M. E. (2021). The importance of trust when leading in times of change. In J.S. Brooks & A. Heffernan (Eds.), *The school leadership survival guide: What to do when things go wrong, how to learn from mistakes, and why you should prepare for the worst* (pp. 471-486). Information Age Publishing.

Tschannen-Moran, M., & Gareis, C. R. (2017). Principals, trust, and cultivating vibrant schools. In *How school leaders contribute to student success* (pp. 153-174). Springer. https://doi.org/10.1007/978-3-319-50980-8_8

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*(6), 944-956. https://doi.org/10.1016/j.tate.2006.05.003

Van Ness, P. H., Murphy, T. E., & Ali, A. (2017). Attention to individuals: Mixed methods for n-of-1 health care interventions. *Journal of Mixed Methods Research, 11*(3), 342–354. https://doi.org/10.1177/1558689815623685

Yin, R. (2014). *Case study research design and methods* (5th ed.). Sage. https://doi.org/10.3138/cjpe.30.1.108