AN INVESTIGATION INTO FACTORS THAT INFLUENCE TEACHER STRESS LEVELS WITHIN AN ELEMENTARY SCHOOL WHERE MINDFULNESS STRATEGIES AND A DISTANCE LEARNING MODEL ARE IMPLEMENTED

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Abstract

This study explored the causes of teacher stress, teachers' perceived stress, and the self-care teachers and staff at the elementary level are taking to minimize their stress levels. In addition, the study looked at the impact of an 8-week mindfulness intervention to assist in alleviating stress. This study looked at the impact of distance learning due to the Coronavirus pandemic, and some of the obstacles teachers must overcome to keep themselves mentally healthy. A mixed-methods research approach was selected for this action research study because the data that was collected and analyzed within the research was both quantitative and qualitative data. Findings indicate a relationship with the amount of time teachers implement mindfulness activities and their corresponding stress levels. Correlational analysis also suggests relationships between teacher demographics and perceived stress levels. Recommendations for future research include further investigation with the duration of the intervention as well as completing the research during a school year that does not include distance-learning.

CHAPTER 1

Stress in any field is not beneficial for the work environment. Research shows there are health risks and negative side effects that come along with mental stress. "Psychological stress has been found to contribute to poorer health practices, increased disease risk, accelerated disease progression, greater symptom reporting, more frequent health service utilization, and increased mortality" (Cohen, 2007). Educators working in schools are among those who experience high stress levels.

Background

As an elementary principal in central Pennsylvania, I have observed that teachers are more stressed as higher demands continually are placed on them. Not only are they responsible for all the students in their classroom to make yearly adequate progress academically, but they must abide by Section 504 of the Rehabilitation Act documents, Individualized Educational Plans, Gifted Individualized Educational plans all the while continuing to foster a nurturing environment for the students' social-emotional needs and safety. Teachers do this while receiving "poor status in the community; poor salaries (relative to other professions); poor student behavior; excessive workload; poor leadership; poor working conditions; and increasing government accountability measures" (MacKenzie, 2007).

Along with constant everyday stressors teachers face, we are currently in a global pandemic. Teachers are uncertain whether each day will be their last in their building before they have to teach virtually. They are concerned about their health, their family's health, the students' health, and their job security.

> During the recent Coronavirus disease 2019 (COVID19) outbreak in China, 54% of the participants of a large online study rated the impact of the outbreak on their mental health as moderate to severe, with depressive symptoms and anxiety being the conditions most often stated. (Fegert, 2019)

Mindfulness and self-care activities have been identified as effective ways to lower teacher stress. "Overall, our research produced relevant results confirming previous findings of the beneficial effects of mindfulness meditation on teachers' perceived levels of stress and emotional stability" (Fabbro, 2020). However, with the demands a teacher faces throughout their day, very few teachers implement these practices. Making time to implement these practices may support lower stress and higher satisfaction during the school day.

Interventions for teacher stress have traditionally fallen in three main categories including those that are: Knowledge-based intervention (KBI), such as a psychoeducational or informational training; cognitive-behavioral intervention (CBI); or behavioral intervention (BI). Over recent years, treatment studies have fourth modality, mindfulness-based approaches (MBI), or the use of meditation, acceptance, and raised awareness of physiological indicators of stress (Greenberg & Harris, 2012). Some criticisms of MBIs are that use of meditation, without underlying emphasis on behavior change, may augment the rumination tendency within stress-based disorders (Hofmann et al., 2010). More recently, initial evidence has emerged that has evaluated mindfulness practices across a number of problem behavior domains (Klingbeil et al., 2017).

> However, little is known about its influence on teachers or its application to occupational type stress. To support implementation, a critical review of the

> relative effectiveness of various teacher stress interventions is needed, including how mindfulness is implemented for teachers in a school setting and whether MBIs are as successful as other types of teacher stress interventions. (Embse, 2019)

This study does just that, as it looks at mindfulness practices and their influence on teacher stress. The study could be important to school administration when looking at what causes teacher stress, universities that are trying to prepare students entering the teaching profession, and teachers who are trying to cope with daily professional stress.

Capstone Focus

The purpose of this mixed-methods research study is to identify what kindergarten through fifth grade teachers in a select Pennsylvania school report as the most impactful stressors during their workday. A voluntary intervention group will participate in mindfulness activities and coping strategies that they use to help reduce work-related stress.

Teachers at Middle Paxton Elementary School in the Central Dauphin School District (CDSD) will participate in the study. The Panorama district- issued survey will measure teachers' attitudes towards leadership, students, and overall job satisfaction within the school building. Participation in the researcher's survey will identify factors that affect teacher morale and their overall satisfaction on the job.

The Central Dauphin School District is implementing a Hybrid Model of learning. This means teachers will be in brick and mortar with children Monday through Thursday. Every Friday all teachers will be teaching using the distance learning method. This will

enable the researcher to identify teacher stress levels with brick and mortar compared to stress levels during distance learning.

Research Questions

Based on teacher stress surveys, mindfulness activities being presented to the volunteers, and the Covid-19 pandemic, the following research questions will be answered:

Research Question 1. What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?

Research Question 2. How does the implementation of mindfulness activities affect elementary school teacher stress level?

Research Question 3. How does using a distance-learning model due to coronavirus affect elementary teacher stress?

Expected Outcomes

All teachers participating in the mindfulness activities will be participating in an overview of the potential mindfulness interventions. Survey results of participants doing the mindfulness activities will be compared to participants not doing mindfulness activities. The same will be done for the teachers doing the distance-learning model. This will give the researcher data on whether mindfulness activities are beneficial to teachers, as well as how the distance-learning model is affecting teachers.

Fiscal Implications

The Panorama survey is funded through a (PCCD) Pennsylvania Commission on Crime and Delinquency meritorious grant that the district has received. This was School Board approved two school years ago, when the district first received the grant. The

district received a little more this school year (2020-2021) and were able to budget for the addition of Social Emotional Learning, Equity subscales, and professional development sections. This is something the district was not able to do before this school year.

The district has a license with Zoom. The researcher will be using Zoom to communicate with teachers virtually.

The researcher will be creating the surveys using Google Survey. All Google documents are a part of the district technology, at no cost to the teachers or staff. The mindfulness activities will be sent to the participants using Screencastify. This is provided to the employees of the district. The applications Mindfulness Coach, and Headspace, are both free apps that are downloadable to any smart phone.

One of the indirect costs would be time of the researcher, and the volunteers' time. They will fill out surveys throughout the school year. Another indirect cost is the use of the school laptops or computers to complete the surveys. All Central Dauphin teachers are issued a laptop upon hire.

Summary

This will be a mixed methods approach to investigate teacher stress in the elementary school setting, and how a change in instruction due to the pandemic impacts teachers stress level, and how mindfulness activities influence teacher stress. If the data shows that mindfulness activities helped with stress in teachers, the superintendent wants to offer mindfulness activities district wide. If I find they are successful, I will continue to implement them and show teachers how to use them in their everyday lives to help with work stress.

CHAPTER 2

Literature Review

Stress in any field is not beneficial for the work environment. Research shows there are health risks and negative side effects that come along with mental stress. "Psychological stress has been found to contribute to poorer health practices, increased disease risk, accelerated disease progression, greater symptom reporting, more frequent health service utilization, and increased mortality" (Cohen, 2007; McEwen, 2002; Pennebaker, 1982).

The literature review will explore three major themes and subsets within those themes. The first theme describes teacher stressors within the workplace. Specifically, it will focus on student behavior, workload, special education, public perception, leadership, standardized tests, teacher beliefs, and compensation as it relates to teacher stress. The second theme will look at Coronavirus pandemic stressors. Specifically, the initial school shutdown, the COVID-slide, teachers returning to instruction, and the stress of teaching during a pandemic. The final theme will focus on the importance of mindfulness, beginning with the history of mindfulness, the benefits of mindfulness, and how teachers can incorporate mindfulness to reduce job-related stress including teacher burnout, anxiety, and specific coping strategies to implement for overall betterment of mental and physical health.

Teacher Work Related Stressors

Kyriacou (2001) defined teacher stress as unpleasant negative emotions resulting from some aspect of their work. Some of these emotions may include anger, anxiety, tension, frustration, and depression. Kyriacou (2001) further stated that teacher stress is a negative emotional experience triggered by the teacher's perception of his/her work situation, which threatens his/her self-esteem and well-being.

The 2017 Educator Quality of Work Life Survey's results by the American Federation of Teachers indicate that 61% of teachers describe their work as "always" or "often" stressful. This number is more than double, or significantly higher, than the average U.S. worker whom the study found their work to be "always" or "often" stressful, 30 percent of the time. The study found that teachers were sleeping fewer hours than other U.S. workers, as well as reporting that they were having mental health issues more frequently within the past month. The study also found that teachers were experiencing higher levels of perceived harassment and bullying at work than other U.S. workers.

Research indicates that teachers are more stressed as higher demands continually are placed on them. "While teachers may find personal satisfaction in teaching, it can also result in stress, burnout, and leaving the profession" (Hanuskek, 2007; Ingersoll & Smith, 2003). Not only are they are responsible for all the students in their classroom to make yearly adequate progress academically, but they must abide by Individualized Educational Plans, Gifted Individualized Educational plans all the while continuing to foster a nurturing environment for the students social-emotional needs and safety. Teachers do this while receiving "poor status in the community; poor salaries (relative to

other professions); poor student behavior; excessive workload; poor leadership; poor working conditions; and increasing government accountability measures" (MacKenzie, 2007). "Teaching has consistently been ranked as a high stress occupation (Griffith et al, 1999; McCormick, 1997) with between 33 and 37% of teachers studied regularly reporting being 'very/extremely' stressed due to factors intrinsic to the teaching profession" (Chan & Hui, 1995; Mapfumo, 2012).

There are many variables and causes of stress that can contribute to teachers feeling overwhelmed. While many studies have been done with a variety of explanations, this study will focus on some of the main reasons found in the breakdown of teacher's mental health. "The causes of stress and exhaustion may include increased workload, students with behavioral problems, problems in the parent-teacher relationship, conflicts in cooperating with colleagues, lack of support from school leadership, and lack of autonomy" (Skaalvik, 2007, 2009, 2011). Almost all surveys indicate that teachers are fairly satisfied with the nature of their profession and collegial relationships, they have always been dissatisfied with remunerations, working conditions, leadership administration, and opportunities for promotion in the profession. This shows that the teaching profession provides lower salary, poorer working conditions, fewer opportunities for promotion, and virtually no power of self-determination compared with most other professions (Xu, 2007). "Research in different cultures indicates that schoolteachers are among those professionals with the highest level of job stress" (Stoeber & Rennert, 2008). "As a result, many teachers experience emotional exhaustion, which is often conceptualized as a central dimension of burnout" (Skaalvik, 2011).

Global stressors have also affected teachers and school systems.

> Examples include terrorist attacks (specifically those during 9-11) natural disasters (e.g., Hurricane Katrina), the growing disparity in socioeconomic strata, the changing demographics of the U.S. population, and legal mandates or federal policy that influence the lives of students and classroom teaching protocol (e.g., No Child Left Behind). Therefore, political, social, and systemic changes may also contribute to increased levels of stress experienced by teachers in and out of work. (Curry, 2012)

The United States is currently in a pandemic known as the Coronavirus, or Covid-19. This brings a whole new set of challenges for teachers.

> Conversely, if teachers do not possess skills to positively adapt to stress, they may experience increased stress. Increased stress might lead to more negative outcomes, most notably, the experience of a pattern of emotional exhaustion progressing to burnout, decreased empathy toward others, feelings of fatigue, loss of compassion, becoming experientially avoidant (avoiding internal thoughts, feelings, and experiences), and reduced effectiveness, which can further exacerbate the stress teachers feel. (Csaszar, 2012; Hinds et. al., 2015; Yu et al., 2015)

Student Behavior

Just as all cities and towns are not equal, all schools are not equal. Schools receive different amounts of funding based on their locations and taxable income. Districts receive different amounts of money from the local, state, and federal government. All of this creates inequity. With inequity in a community, comes inequities with the children

within these communities. This can cause one school to have more behavioral problems just based on the families' socio-economic status compared to another school.

Students may come in with adverse childhood experiences (ACEs) which include experiencing violence, abuse, or neglect; witnessing violence in the home or community; or having a family member attempt or die by suicide. When teachers have day-to-day interactions with students experiencing these types of situations, they experience secondary or vicarious trauma. "Secondary trauma or vicarious trauma (VT) is the development of disruption to the internal beliefs of those who continually face the traumatic incidences of others" (Lesh, 2020). When teachers experience VT, they have a higher risk of stress, mental fatigue, and anxiety. "Children in the present study who had experienced multiple ACEs were likely to be reported to have increased problem behaviors and decreased social-emotional competencies" (Ray et al., 2020).

> The common physical needs of school going children are security, comfort, clothing, nourishing food, plenty of fresh air, a secure atmosphere, time and space to play, a good amount of sleep and rest, clean water for drinking and bathing, a fair amount of freedom, regular exercise, social acceptance and peer acceptance so they tend to seek harder and more daring behaviors. Those are some of the general physical needs that children have, and it is vital to work towards fulfilling each of these needs as the proud parents of beautiful, growing children. (Kasturkar & Gawai, 2020)

Teacher stress and student behavior are strongly linked; while teachers report that student behavior is a source of stress, teachers also manage student behavior

> differently under high levels of stress. Knowing which interventions may be most effective is essential to reducing teacher stress. (Embse et al., 2019)

"A significant amount of teacher stress arises from teacher cognitive perception of student behavior and difficulty with classroom management, and stress has long been linked with impaired teacher-student relationships" (Yoon, 2002).

"Disruptions of close peer relationships have been associated with depression, guilt, and anger in children. In addition, children experiencing isolation and quarantine have shown an increased risk of developing post-traumatic stress disorder, anxiety, grief, and adjustment disorder" (Fantini et al., 2020). These factors can be causes of more discipline problems in the classroom.

Workload

Otto (1996) defined job stress as a disparity between the external and internal job demands and the external and internal job resources (Otto, as cited in Skaalvik & Skaalvik, 2015). (Demerouti et al., 2001) defined job demands as those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (e.g., exhaustion). "Workload was an example of job demands" (Boyle et al., 1995).

> Job resources referred to those physical, psychological, social, or organizational aspects of the job that may do the following: a) be functional in achieving work goals; b) reduce job demands at the associated physiological and psychological costs; c) stimulate personal growth and development. (Demerouti, 2001)

While there are many causal factors of stress among teachers, two types of stress are consistently discussed in research: stress related to student behavior and discipline,

and stress related to workload (Gonzalez et al., 2017). Brackenreed (2011) reported that teacher stress levels were influenced by accountability measures imposed by state standards as well as issues that interfered with instructional time. Some of these issues included increased levels of paperwork, workload demands, and lack of time and support.

> Some of the issues cited as interfering with instructional time were: increasing levels of paperwork, extracurricular duties, and interpersonal conflicts. However, teacher workload demands, not having enough time to prepare and instruct, and lack of support were also common factors associated with teacher stress. (Brackenreed, 2011)

Butt and Lance (2005) discovered that the most extensive workload stressors named by teachers were related to teacher accountability and assessment. "Increased workload and stress associated with a self-managing environment can be attributed, in part, to the ways in which teachers organize themselves. Teachers not only suffer from workload problems, but also create them" (Timperly, 2000). "Some common educational stressors include schools and school systems becoming increasingly more bureaucratic; greater service delivery demands in the form of heavy workloads with fewer resources" (Curry & O'Brien, 2012).

Special Education

When looking at the amount of students placed into a classroom, and all of the different needs, it can be very difficult for a teacher to meet the needs of the students.

> Teachers are also finding it increasingly difficult to meet needs of students with a wider range of abilities resulting from inclusion policies that have seen the number of students with disabilities in mainstream classrooms in NSW (New

South Whales) schools go from 14,488 in 1988 to 35,256 in 2002. (Mackenzie, 2007)

Research indicates that the job of the special educator is difficult, demanding, and more stressful than that of general educators (Bettini et al., 2017). Special educators face increasing or large caseloads, lack of clarity in their roles, lack of administrative support, excessive paperwork, feelings of isolation and loneliness, and minimal collaboration with colleagues (Albrecht et al., 2009). "In terms of their scores in the measures used in the present study, special education teachers scored higher than their general education counterparts in all stress measures" (Lazuras, 2006).

> High stress levels in special educators result in various adverse organizational phenomena such as job dissatisfaction, burnout and eventually leaving the field of teaching or transferring to mainstream schools. In turn, high attrition rates and intentions to quit among special educators largely explain the short age of specialist teachers currently experienced in many countries. (Boe et al., 1997)

"Workload, organizational constraints and work-related interpersonal conflict relate to illness symptoms and it is important to explore the dynamics of this association among special education teachers" (Lazuras, 2006).

> Job stress scores by special education teachers were higher than the ones given by general educators. More to the point, teachers in special education appear to experience significant burdens arising from issues pertaining to organizational aspects of their work. Organizational structure; task characteristics, such as the lack of necessary information about what to do and how to do it; poor

> supervision; and weak bonds among colleagues were reported as stressors that potentially constrain teacher performance. (Lazuras 2006)

Public Perception

Public perception and the way society views teachers plays a role in teachers' morale, and stress levels.

> The public persists in believing that anyone can teach, with teaching regarded in the community as woman's work – a half-step above child care (Johnson, 2000) with long curricula, administration, and policy processes had become more important than teaching, thereby affecting the political influence, public image and ascribed status of teaching (Mackenzie, 2007).

"It is hard for teachers to maintain high morale when they feel neither respected nor trusted" (Noddings, 2014).

"Within the studies that address this topic, several researchers find that the media portrays teachers as caring (yet professionally ineffective) individuals who simultaneously need and obstruct reform" (Cohen & Janicki-Deverts, 2010). "Moreover, researchers identify several discourses within educational news reporting, including discourses of derision, deficit, and disgust, as well as repeated messages of crisis" (Cohen & Janicki-Deverts, 2010). "News articles within this vein "influence public opinion regarding declining teacher quality and standards, and views of public schools as being in crisis, creating moral panic" (Ulmer, 2016).

Barrett (2012), a national teacher leader, attempts to create such understanding in an online guest column for CNN. Barrett writes that,

> Educators will often observe with some frustration that our profession is one of the few that people from all walks of life feel comfortable commenting on and often criticizing. Precious few know the intimate details of what our days are like. While the negative feedback can often be disheartening, I think we must regard the public's interest in our work as a great opportunity – it shows that people care deeply about the calling to which we have devoted our lives. If some people's perceptions of what we do with our workdays does not match up with the reality, we have an obligation to inform them of that reality. (Barrett, as cited by Ulmer, 2016)

Leadership Stress

Another factor that can influence teachers, good or bad, is leadership. A leader's job is to keep the employees engaged and held accountable. If this does not happen then a teacher can become less willing to put forth their best effort.

> Job satisfaction refers to the degree of satisfaction a worker evinces for the work in which he or she is engaged. In a majority of organizations and circumstances, people will continue to work in the organization if they feel sufficiently satisfied. Otherwise, they will quit work or behave badly, shirking responsibilities. (Xu & Shen, 2007)

"There is also a definite relationship between leader behavior and teacher behavior. It has been found that administrators can play an important role in establishing a healthful climate" (Miller, 1981).

Leaders are in charge of the social climate of the building. They must make sure they are prepared for everything and anything that comes their way. They must ensure

they are working to be proactive, rather than reactive. Their ability to create teamwork and build unity with their employees plays an integral role in the climate of the school. "There is evidence that the social climate of the school and the morale on the staff can have a positive effect on pupil attitudes and learning. Improving the climate and morale also makes teaching more pleasant" (Miller, 1981).

In a study by Stauffer and Mason in 2013, they found that principal behavior and leadership style set the tone of the school and have a significant impact on the contribution of teacher stress, or if they alleviate teacher stress. They note that leaders who give a shared leadership style, and give the teachers ownership of decisions have more buy-in to the school and less stress. Teachers feel valued by administration and are more likely to work harder, volunteer, and join additional committees for their principal. In contrast, leaders who rule with an iron fist and do not take into account the teachers' perspectives have lower building morale, and higher teacher stress. Teachers feel their environment is not safe, and there are more lawsuits in buildings such as these.

> Traditionally, educational policy research has focused on working conditions (i.e., school administration, teacher autonomy, and collegiality with colleagues) as the main driver of occupational health. That is, teacher stress tends to be viewed as a result of working in a stressful environment, often characterized as lacking sufficient funding or effective leadership. (McCarthy, 2019)

Standardized Tests

When discussing teacher stress, standardized test scores cannot be omitted due to how important they are in teacher evaluations, school evaluations, and public perceptions of the school and teacher.

> Teachers are often blamed for low student test scores, although it seems obvious that many factors affecting student achievement are beyond their control. Teachers are also threatened with new systems of evaluation, some of which are scientifically questionable-even bizarre- in the inconsistent results they produce (Noddings, 2014).

We as a society do not judge a physical therapist on how well his patient recovers, especially when that patient spends a large majority of time outside the therapists office. Once the patient leaves, he or she is responsible for continuing to get better and practice what the physical therapist has told him. However, we do this with teachers. We judge teachers and schools on how well they take a test in March or April, when there are many other factors that could attribute to the scores the students receive. In the 2017 Quality of Work Life Survey, one teacher was quoted as saying, "Majority of stress for teachers comes NOT from students, but from things outside the classroom like district bureaucracy, changing state mandates and the constant flux in testing and other requirements."

Teachers feel accountable for the students' scores on the tests, even though there are so many variables they do not control like the child's family income, if the child receives basic human needs such as food, drinks, and clothing at home, and if the child is dealing with trauma. Teachers are exposed to students that experience trauma on a regular basis. In the "Student Behavior" section, ACEs were discussed, and their impact on both the student mental state and behavior, and its influence on the teacher in the classroom. With all of these uncontrollable variables, teachers are expected to make adequate yearly progress with their students and close skill gaps they have had from

previous teachers. Teachers deal with curriculum changes that are catered to "teaching to the test" rather than teach the student. It causes stress and takes away satisfaction from the workplace. "Teacher job satisfaction can only be increased and teaching quality improved when teachers are no longer pressured by exams" (Xu & Shen, 2017).

In a research conducted by Jones (1999), 89.9% of North Carolina teachers reported that the implementation of high-stakes testing increased their stress levels. Some states have tried to link standardized tests to teacher evaluations.

> The intent of test-based accountability policies that are linked to teacher evaluations is to provide an incentive for teachers, administrators, and students to improve the curriculum and pedagogy, identify and intervene with struggling students, and increase parent involvement, with the ultimate goal of improving student achievement. However, literature suggests that accountability policies that use student test scores to evaluate teacher effectiveness has unintended, negative consequences on teacher psychosocial well-being and the school environment and resulted in teacher burnout and turnover. (Saeki et al., 2017)

Teacher Beliefs

Teachers have their own beliefs and values they bring into the classroom environment as well. These can be political, social, behavioral, etc. Because these inner-personal values may not line up with the principal or district vision, teachers could be torn emotionally.

> Teachers who are concerned that they are representing values that are not congruent with their personal values may experience cognitive dissonance and teaching and classroom management may become stressful. In comparison, a

> person in a consonant environment is more likely to have a feeling of belongingness. (Skaalvik & Skaalvik, 2011)

There are some unknown variables that come along with teacher stress and job satisfaction. Each individual person reacts to things differently. Teachers have a passion for specific things, so something that may stress one person out, may not stress another person out.

> A problem with measuring teachers' job satisfaction with different circumstances and letting those measures indicate overall job satisfaction is that different circumstances may be important to different teachers. Therefore, the problem with such measures is that they overlook the fact that the impact of different circumstances on overall job satisfaction is dependent upon how important each of the circumstances is to the individual teacher. (Skaalvik & Skaalvik, 2011)

Teachers today must follow a rigid routine for their lessons. They need to post a lesson essential question, instruct the students, do a summarizing activity or assessment that the students learned what they taught, and assign homework. This routine done repeatedly can become mundane. It begins to suck the joy out of teaching for some teachers. Noddings (2014) said, its overuse (the lesson plan format) can be deadly boring and even counterproductive.

> Chris Kyriacou (2001) and others have argued that teacher stress is better understood as resulting from a mismatch between the pressures and demands made on educators and their ability to cope with those demands. Workforce conditions alone are not sufficient to explain why some teachers are highly stressed. Rather, what matters most is how each teacher sees the demands they

> face in relation to the resources they have available to meet those demands. Just as beauty is said to be in the eye of the beholder, stress depends on the teacher's unique view of their classroom. (Gonzalez et al., 2017)

Compensation

Salaries of teachers has always been a large debate. The public feel like they are overpaid because they get three months off in the summer. Others feel like they are underpaid because they are raising children to be educated and the future of society. "Surveys and studies on teacher job satisfaction reveal that teachers are most dissatisfied with their salaries and welfare benefits. This is a difficult and long-standing problem that has consistently plagued the development of China's education" (Xu & Shen, 2007). "While the demands upon teachers have increased, there has been little change in the patterns of employment, compensation, and career advancement of teachers" (Mackenzie, 2007).

> More than half of the country's teachers say they'd go on strike for better pay if they had the chance, and half are so unhappy that they've seriously considered leaving the profession in the last few years, according to a recent poll. (Gewertz, 2019)

The article goes on to say, "half the teachers in the survey said they'd considered leaving the profession in the past few years, citing two reasons most frequently: compensation and stress" (Gewertz, 2019).

According to the Center on Budget Policy Priorities, average teacher pay in all but 11 states decreased between 2010 and 2016. A study by the Economic Policy Institute

showed that in the past two decades, teachers' average weekly wages, adjusted for inflation, have fallen, while the wages of other college graduates rose (Gewertz, 2019).

Coronavirus Pandemic Stressors

Along with all of the stressors mentioned in the regular teaching profession, when this study was conducted the United States was in the middle of a pandemic. COVID-19, or the coronavirus, has been affecting people of all ages. As of October 2020, statistics from the Centers of Disease Control and Prevention (CDC) have noted that roughly 215,000 people have died directly from the Coronavirus, or have perished because of an underlying health issue that the Coronavirus exacerbated. "The coronavirus outbreak transformed from an unfamiliar, distant danger to a pervasive, deadly pandemic that has shaken the foundation of billions of lives, including nearly all of the millions of students attending schools and universities in the United States" (Kennedy, 2020).

> The most tragic effect of the virus is the ever-rising death toll, but the pandemic has also disrupted the lives of students in ways large and small. Students cut off from the school meals they depend on for nutrition or the teachers they rely on for emotional support; sports competitions abruptly ended for student athletes seeking championships; the milestones of graduation ceremonies and senior proms taken away by cancellations; high school seniors with plans for college left in limbo. (Kennedy, 2020)
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> Some K-12 systems expressed reluctance to stop in-person instruction because many students did not have home access to the internet and many students depended on school-provided meals to fend off hunger. For instance, the Philadelphia district announced that it would not offer online instruction while its

schools were closed because too many students lacked computers or online connections. New York City schools have the same problem, but officials have moved forward with online instruction and are working to provide iPads or other devices to the thousands of students without one. (Kennedy, 2020)

Students with more resources and supports were more insulated from the effects of the pandemic, and better able to meaningfully participate in school. Other students—those who had insufficient technology access, who had home responsibilities like caring for younger siblings, or who felt the overwhelming stress of social isolation or a family member losing their job or becoming sick—had their learning essentially placed "on hold." These learning losses likely occurred more frequently among students with fewer economic means and less racial privilege. (Feldman & Reeves, 2020)

Parents are often the only care providers for children, which limits their work productivity, even when they are fortunate to have a job that allows them to work from home. In some cases, forced cohabitation in a home environment, with parents suffering from economic and mental health issues exposes children to the risk of uncovering violent behaviors. Regarding the educational aspects, during the lockdown, e-learning was not always a feasible alternative to face-to-face instruction for these aged children, particularly when acquiring hand-eye coordination for writing. E-learning could also amplify inequalities (digital divide). Therefore, the potential benefits of dismissing students aged 2 to 10 years old from schools to contain the spread of infection may be outweighed by the negative consequences of keeping them home. (Fantini et al., 2020)

Teachers are no different from any other professionals. They are susceptible to the COVID-19 just as much as any other person in any other profession. They have to learn to teach virtually and in person. This is cause for an enormous amount of added stress to a profession already littered with anxiety and exhaustion.

> That exhaustion emerges from a tangle of dynamics. Teachers are grappling with unfamiliar technologies. They have to retrofit – or reinvent – their lessons and find new ways to do familiar things, like grading homework. They are inundated with emails, texts, and calls from principals, parents, and students. They are trying to 'be there' for students and their families. Many are juggling the needs of their own children or other loved ones while managing their own coronavirus fears. (Gewertz, 2020)
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> Because of this wide array of potential trauma and anxiety- without even considering the worldwide protests for social justice- many educators are emphasizing the need for a trauma-based perspective. One of these advocates is Jesse Stommel, a senior lecturer of digital studies at University of Mary Washington in Virginia and cofounder of Digital Pedagogy Lab. Stommel (2020) strongly believes that we need to design education for the students most likely to be struggling, which means robust hybrid approaches. He hopes educators will imagine new ways forward, with the students at the center. As difficult as the last months have been, on so many levels, for all of us, and especially for black students, students with disabilities, and other marginalized students, I think trauma-informed pedagogy will be crucial. (Godsey, 2020)

The teachers in the Central Dauphin School District went from live, in-person instruction on a Thursday and then were told the next day, Friday afternoon, that starting Monday they were not allowed back in the building until further notice. One would surmise that this would cause anybody a great deal of stress and anxiety.

> Stress isn't new to teachers, but what they're experiencing now makes their typical stress seem like a picnic. Driven by a pandemic to the front lines of an unprecedented rush to distance learning, the nation's teachers are scrambling to manage an armful of new challenges. (Gewertz, 2020)
>
> The combination of stress and grief can produce brain changes that make the already-stressful job of teaching during COVID-19 even tougher, said Patricia A. Jennings, a professor of education at the University of Virginia and an expert in teacher stress. The sudden shift to the new demands of home teaching, laced with fears about coronavirus, blend into a kind of trauma that can shift the brain from higher-order thinking skills into survival mode. (Goode & Shinkle, 2020)

The COVID Slide

After the fear of the health issues that come along with COVID-19, one must look at what has happened to the education of the children of the United States. In the 2019-2020 school year in Pennsylvania, Governor Tom Wolf shut down all Pennsylvania schools on March 13, 2020. This took away three months of in-person school from the students. Most schools were not prepared for this, and did not have a plan in place to immediately move from brick-and-mortar teaching to full-blown virtual.

"Teaching from home comes with another risk: too little physical activity." (Gewertz, 2020). Teachers have complained of being worn out from sitting in front of

the computer screen for so long. Their bodies ache for hours on end and they have much movement from working endless hours (Gewertz, 2020).

As an administrator, I witnessed first-hand how some teachers were able to make this transition with minimal issues, while others had no idea how to make the transition to at-home virtual teaching and learning. At the Central Dauphin School District, teachers used Google Classroom as their main means of educating, and some teacher have never used this. Teachers had to switch to virtual learning. Parents had to stay home with their children and assist them with the online learning, sometimes without a device to properly acquire the information the teachers were supplying. Students had to make the switch from seeing their friends every day in school, to sitting at home, unable to socialize with anybody but their immediate family, and attempt to get an education.

This was a giant learning curve for the teachers, parents, and students. The lack of genuine teaching for three months lead right into the summer vacation. Students then had off from the beginning of June, until they returned to school in August. This caused a five-month (March until August) lapse in formal education for a majority of students. This extended break was coined the "COVID slide." It referred to the lack of education students would be receiving during the coronavirus pandemic. Experts agree that this COVID slide will be very detrimental to the academic and psychological growth of students.

> In fact, the "COVID slide"—as it has been dubbed—might actually be worse for students than an extended summer, if for no other reason than the break was caused by a genuine trauma. Almost all students were jolted by the sudden separation from their friends and cessation of their everyday habits. Some

> students knew someone who was sick with the disease. Many students had parents who suddenly lost their jobs. (Godsey, 2020)

"Students could return to school with about 70% of learning gains in reading compared with a normal school year, and 50% of the typical learning gains in math" (Godsey, 2020). Many of the teachers Godsey mentioned in the article denounced the idea that literacy will be affected less than math retention during this time.

Most students have a typical loss of knowledge or informational slide in the summer. This is called the "summer slide." This summer slide does not discriminate between races or incomes. "It has been known for many years that families' socioeconomic status and education levels have had a significant impact on their children's academic success" (Kaylar, 2020).

> When it comes to reading, middle-class students generally maintain their skills while their lower-income classmates tend to fall behind. The impact of the long summer break and the longer pandemic break is going to make even more dramatic the impact of achievement gaps based on ethnicity and income. (Zalaznick, 2020)

Another issue Poe (2020) discussed was exactly where classes were when the shutdown from the pandemic occurred. He noted that a class that focuses on lecture or PowerPoint slides would be easier to transition to online than a class that presentations, group work, or hands-on experiences would have to try to transition to. "Student presentations were particularly problematic because the students had prepared their work for in-class delivery, using the resources available in the classroom" (Poe, 2020).

Return to Instruction

Elementary teachers in Central Dauphin all returned in August to a completely new method of teaching. They had half of their class Monday and Tuesday for in school learning (Group A) while the other half (Group B) was virtual. Then they have the other half of their class in school Wednesday and Thursday (Group B) while group A was virtual. Everybody was virtual Friday, but teachers had to do Zoom meetings along with recorded instruction. You could be a first year teacher or a 30-year veteran, and it was an even playing field because all teachers were teaching in this particular way for the first time.

> School activities have been properly designed in order to limit as much as possible any spread of the virus. After a month, the adopted measures (the creation of small groups of children for lessons and for playtime, frequent hand washing, student's desks spaced 6 feet apart, and, whenever possible, classes held outside) seem to be effective. (Fantini et al., 2020)

In many places, teachers are heading back into classrooms without any guarantee that they will stay healthy.

> Teachers have a broad array of concerns, many of which boil down to a few major questions with no clear answers: How will their districts ensure their safety? And if they do get Covid-19 on the job, how will their districts take care of them? In interviews, teachers say the unknowns of the upcoming school year are keeping them up at night. They are having stress dreams. Some are taking what would have once seemed like extraordinary precautions before the start of the school

> year – including drafting wills and buying scrubs or other personal protective equipment. (Will, 2020)

Godsey (2020) echoed the concern for teachers by saying, "In anticipation of a resurgence of the virus, many teachers think it's time for a total reform of the educational system. We need nothing short of reimagining the education system as it is currently structured…[one] that is long overdue." Godsey goes on to say, "That 'crisis breeds innovation' and 'I'm excited for everything to get tossed around and re-created." He believes that infusing online education for all educators is best teaching practice. "The teachers and students who were reporting the easiest transition to distance learning over the spring were from schools that already incorporated online learning as part of their standard curriculum" (Godsey, 2020).

> Online instruction is not a hobby. Done well, it is a finely honed skill, practiced over many semesters, just as we would with classroom strategies and skills. To take a class online with no training is not fair to either the faculty or the students. There are only a handful of faculty members who are truly experts in online instruction at this point, and after a rough couple of weeks, these people were made available to struggling faculty for assistance. As the semester progressed, more and more resources were made available to faculty to bring their skills up to a comfortable level for both students and teachers. However, the prospect of continually teaching online or partially online is daunting and for me, mostly dissatisfying. (Poe, 2020)

Teaching in a Pandemic

Teachers are frustrated because Coronavirus case numbers in October of 2020 are higher than they were in the spring, when schools were closed. "While a body of research is starting to emerge about how the coronavirus is spread, much is still unclear, especially about children's role in transmission" (Will, 2020). "Teachers also feel caught between their students and families, who are overflowing with questions, and their principals, who often can't provide answers yet" (Gewertz, 2020).

Teachers own health and safety is cause for concerns. According to (Will, 2020), teachers older than 55 are at higher risk of severe illness due to Covid-19.

> Teachers who are immunocompromised, obese, or have type-II diabetes are also at increased risk for severe illness – and the Center for Disease Control and Prevention says that people with conditions like asthma, pregnancy, or high blood pressure may be at increased risk too. (Will, 2020)

Will mentioned that some teachers decided to retire early rather than take the risk of returning during a pandemic. Many schools are struggling to find substitute teachers because many substitutes are former teachers that retired, but they are in a more dangerous age and health range to the coronavirus.

> Also, adult to adult transmission in schools is a big concern. In Arizona, three teachers who were sharing a classroom while teaching online during summer school contracted the coronavirus, despite following social distancing protocols. One of them – Kimberly Chavez Lopez Byrd, a nearly 40-year veteran teacher – died at age 61. She had underlying health conditions including diabetes and asthma according to CNN. (Will, 2020).

Mindfulness

"Mindfulness refers to a process that leads to a mental state characterized by nonjudgmental awareness of the present moment experience, including one's sensations, thoughts, bodily states, consciousness, and the environment, while encouraging openness, curiosity, and acceptance" (Hoffman et al., 2010).

Stemming from ancient Buddhist and yoga practices, mindfulness is recognized as a form of mental strengthening and emotional regulation. It has been practiced for thousands of years, but only recently has become more mainstream with more and more studies being done to look at the effectiveness of the mindfulness practices. A major component of mindfulness is meditation. Meditation is typically described in two ways: as a way to regulate the self through enhanced emotional control or as a path towards gaining wisdom and transforming the self (Sedlmeier et al., 2012). According to Sedlmeier, meditation leads to improvements in emotional stability as well as improvements in personal relationships. Meditation decreases emotional stress such as anxiety and neuroticism, negative emotions, and improves one's ability to handle interpersonal conflict.

There are multiple variations of mindfulness.

> Mindfulness-based therapy (MBT), which includes mindfulness-based cognitive therapy; and mindfulness-based stress reduction (MBSR), has become a very popular form of treatment in contemporary psychotherapy. Several of the applications of MBT have been designed as relapse prevention strategies rather than to reduce acute symptoms. (Hoffman et al., 2010)

Mindfulness as a Tool

One theory related to how mindfulness works is posited by Lindsay and Creswell, (2017). They call it the Monitor and Acceptance Theory (MAT). This theory is based on how mindfulness works to relieve stress and improve emotional control. The theory suggests that there are two steps in mindfulness. The first step is being able to enhance the ability to monitor physical experiences within the world. They call this attention monitoring.

> Attention monitoring, an ongoing awareness of momentary sensory and perceptual experiences (e.g., sounds in the environment, specific body sensations, mental dialogue and images), is typically trained first in mindfulness interventions. Practice involves staying in contact with a chosen focus object (e.g., the breath) and redirecting attention back to that object when the mind wanders. (Lindsay & Creswell, 2015)

The second step is changing how you react to what is presented to you. This can be achieved by accepting what is presented to you, rather than trying to change what is presented to you. They call this the acceptance stage. The acceptance stage consists of accepting things that happen to you in a non-judgmental way. You must accept that these things occurred and not try to change them. It is the opposite of avoidance, which is when negative things happen you try to push them out of your mind and avoid them.

> Instead, maintaining acceptance toward one's experiences means that negative thoughts and feelings are not 'unwanted'; they are welcomed into awareness and allowed to diminish as other experiences enter awareness. Likewise, bringing an accepting mindset toward positive experiences means that these experiences are

not actively sought after, nor are they grasped and clung to when they do occur, but they are noticed and embraced as they arise and pass (Lindsey & Creswell, 2017).

"However, training in both attention monitoring and acceptance is necessary for improving affective (e.g., executive function tasks balancing attention and affect regulation; reductions in depressive and anxiety symptoms), stress (e.g., subjective and physiological stress reactivity), and physical health outcomes" (Lindsay & Creswell, 2017).

Mindfulness Based Stress Reduction interventions (MBSR) are a branch of meditation. MBSR focuses on developing awareness and acceptance using breathing exercises, body-scan exercises, and incorporate yoga exercises. A typical MBSR intervention is eight-weeks long, with participants being given multiple forms of mindfulness to incorporate and document into their daily routine. It is recommended that participants practice for two and a half hours a week, with one intensive day near the end of the intervention if possible. The core components of mindfulness are taught explicitly as skills that can be practiced and learned. MBSR interventions are particularly designed to create desirable real-life outcomes for participants, including sustained attention, acceptance and increased flexibility, lower levels of 24 stress reactions to unexpected events, increased empathy for others, and increased emotional regulation. (Lindsay & Creswell, 2017)

Benefits of Mindfulness

In a study by Hoffman et al. (2010), a meta-analysis was conducted of 39 studies featuring mindfulness-based activities. They found a correlation between using mindfulness and reducing stress, anxiety and depression. Mindfulness was found to reduce negative mood symptoms, anxiety, and stress. Mindfulness was particularly effective with patients who exhibited anxiety and mood disorders. "Schoolteachers are among the professions with particularly high demand on emotional regulation (ER) skills, which are necessary for the successful management of challenging student behavior and for coping with their own emotional states" (Skinner & Beers, 2016).

Incorporating emotional regulation skills such as mindfulness and meditation seems necessary for teachers to handle all of the stressors that come from the profession. These ER skills would not only benefit the teacher for their current position, but it will help maintain a better mental state both inside of work and outside of work. "Over the past decades, mindfulness training has been identified as an effective strategy for improving mental health and well-being, including reductions in anxious and depressive mood" (Hofmann et al., 2010).

"Recent results suggest that while mindfulness may have efficacy as an approach for student-based behavior, there has been a lack of evidence for teachers" (Klingbeil & Renshaw, 2018).

Mindfulness interventions have seen an uptick in the literature in the past dozen years and have been deemed practicable and effective long term. Because mindfulness targets symptoms associated with stress but may not have the stigma

> associated with help-seeking for mental health, mindfulness may represent a positive approach in stress treatment. (Klingbeil et al., 2017)

There have been various studies featuring mindfulness based training practices within school settings. "Teachers participating in a yoga breathing meditation intervention reported lower levels of stress and felt more in control of their emotions" (Hepburn & McMahon, 2017). A meta-analysis of 29 mindfulness-based interventions used with teachers showed that "MBIs had fairly consistent, medium effects on the primary outcomes of psychological well-being, psychological distress, and physiological indicators" (Klingbeil & Renshaw, 2018). An interventional study involving teachers in an inquiry-based stress reduction meditation intervention aimed at investigating nonjudgmentally the thoughts that cause stress found marked improvements in their ability to accept reality as it is and to feel more focused in the present moment (Schnaider-Levi et al., 2017). Student teachers involved in a 12-week loving kindness meditation intervention focused on increasing empathy also reported lower levels of stress and higher levels of empathy (Csaszar et al., 2018). With all of this information, it is reasonable to predict that a mindfulness-based intervention given to elementary teachers would assist in the reduction of stress.

> Educators have very little time to pause between classes or before responsibilities such as bus duty. We are so busy, we may not even notice when we need to use the restroom. Even scattered moments can be transformed into structured mindfulness sessions. Eva chose to join her colleagues for an after-school staff-led mindfulness group. In just 15 minutes, she was able to disconnect from the stress of her workday and feel emotionally ready to enjoy her family. (Best, 2018)

Summary

As stated throughout the literature review, teachers have many different variables that can and do cause stress, depression, anxiety, and both mental and physical fatigue. Factors such as student behavior, workload, special education, public perception, leadership, standardized tests, teacher beliefs, and compensation have been addressed in this literature review. Along with all of these factors, the coronavirus pandemic has changed the way schools function and has been added to the list of possible stressors. Teachers, administrators and parents all have had modifications to their everyday life as well as their professional life. Teachers are dealing with the COVID-slide, concerns inside and outside of the building with possibly contracting the virus, full-virtual teaching, hybrid teaching, and all students returning to the building. There is pressure to maintain high scores on benchmark assessments and standardized tests through all of this.

Similar to the children and students they instruct, teachers need to be given and taught methods in order to cope with all of these outside influences and stressors they face during their workday. "Bruce encourages teachers to 'give themselves the grace they need' to set realistic goals and take care of themselves. Try actually scheduling time in each day for something that brings you joy" (Gewertz, 2020).

In contrast to teacher stress, research shows that when teachers feel better about themselves, the students and overall school community benefits.

> When teacher morale in a school is high and the school environment is healthy, teachers feel good about themselves, each other, and their teaching which in turn impacts on student morale and achievement (OECD, 2000; Young 1998; Mackenzie 2007). Caprara, Barbaranelli, Bogogni, Petitta, and Rubinacci (2003)

> suggest that job satisfaction is the decisive element that influences teachers' attitudes and performance. Early studies indicate that when teachers experience job dissatisfaction, student achievement suffers and teachers become less willing to do their job. Studies indicate that job satisfaction influences teachers enthusiasm and teachers relations to students. However, empirical evidence suggests that American teachers are highly dissatisfied with their careers. (Edinger & Edinger, 2018)

The benefits of this catastrophic shift are that we are all learning new skills. Teachers and parents are adapting and learning new educational skills, and new ways to communicate with one another. "We are realizing that faculty and students are not just the people we see in class, but they have lives outside of class that affect their work. We must be cognizant of these outside factors to fully understand our colleagues and our students" (Poe, 2020).

> As we all strive to achieve the elusive work-life balance, mindfulness strategies can help us stay centered, focused on the present, and better equipped to deal with the inevitable bumps in the road. When we put our own oxygen masks on first, everyone benefits. We become less reactive educators, better friends, calmer parents, and more giving colleagues. (Best & Fagell, 2018)

CHAPTER 3

Methodology

With the continued emphasis on mental health in our society, it is beneficial to continue investigating what causes stress amongst elementary teachers. Within the last year and a half, the global pandemic of Coronavirus, or Covid-19, has added another layer of stress to professionals everywhere, including the school setting. This research study is significant because it will provide an additional understanding of the relationship between stress and elementary teachers. It specifically looks at what causes teacher stress, teachers' perceived stress, and the self-care teachers and staff at the elementary level are taking. In addition, the study will look at the impact of an 8-week mindfulness intervention to assist in alleviating stress. This study will also look at the impact of distance learning due to the Coronavirus pandemic, and some of the obstacles teachers must overcome to keep themselves mentally healthy.

This chapter will explain the methodology used to answer the research questions. The first section will explain the purpose of the study, particularly articulating the research questions and the rationale behind them. The second section will describe the setting and participants, so the educational environment could be understood. Next, the researcher will explain the research plan along with specific dates that interventions took place. It will also explain the fiscal implications within the study. After that, this chapter will describe the research design used and breakdown the exact timeline and data tools used including surveys and questionnaires, as well as explaining the 8-week mindfulness intervention. The final section will provide the validity of the action-research study.

Purpose

The research shows that teachers are more and more stressed as they are continually faced with more and more demands at work. There are many factors that cause stress such as student behavior, workload, special education, public perception, leadership, standardized tests, teacher beliefs, and compensation. The 2019-2020 and 2020-2021 school years have an additional layer of stress, and that is the Coronavirus pandemic. Schools have been shut down completely and teachers have had to adjust to distance learning. Schools have tried different versions of hybrid models where students attend in person certain days, and do virtual learning on other days. Some schools have attempted to return to in-person instruction, only to have cases of coronavirus occur with students or staff in the building. This causes individuals, classrooms, or even entire buildings to pivot and switch to distance learning, sometimes with less than 24-hours of warning. This has caused emotional and financial turmoil for educators, students, and parents.

Now that teachers have gone through the Pennsylvania statewide school shutdown in March of 2020 through the end of the school year (June 2020), the COVID-Slide from March until August 2020, the return to instruction in August 2020, they are now fully engrossed in teaching during a pandemic. The Central Dauphin School District started the 2020-2021 school year in a hybrid model. Elementary student attendance was split by their last name. Students with last names that ended in A-L (and all special education students) attended school in person Monday and Tuesday. They then worked virtually from home Wednesday through Friday. Students with last names that ended in M-Z

stayed home and worked virtually Monday, Tuesday, and Friday. They attended school in person Wednesday and Thursday.

On October 13, 2020, the Central Dauphin School District changed from the hybrid model explained earlier, to all students returning five days a week. This put teachers and students at an even greater risk. There were twice as many students in each classroom for the duration of the day, as well as twice as many at recess and in the lunchroom. This caused multiple cases of Covid-19 to spread to one teacher, and four students. Because of the Covid-19 outbreak within the school, Middle Paxton Elementary School was closed to in-person learning on November 19, 2020. The teachers remained virtual from until January 19, 2020 where they had to teach full time from a distance learning platform.

On January 19, 2020, the Central Dauphin School district had all elementary schools return to full in-person learning. The teachers within Middle Paxton Elementary School have used five different models of teaching (in person, virtual, hybrid, virtual, in person) within one fiscal year. All of these changes can add stress to teachers, students, and parents during a time of high stress because of the pandemic. Teachers now, more than ever, need tools to help alleviate the stress.

The literature states that there is a correlation between using mindfulness and reducing stress, anxiety, and depression. Relational self-care recognizes the importance of positive interpersonal relationships or social connections in promoting well-being and reducing stress (Butler et al., 2019). Emotional self-care includes practices such as meditation, yoga, progressive muscle relaxation, or mindfulness, which are designed to assist one in identifying and replacing potentially destructive coping behaviors, reducing

negative emotional experiences, and increasing well-being and happiness (Butler et al., 2019). Literature also states that we need self-care now more than ever to endure everything that can interfere with a healthy work environment. Professional self-care refers to behaviors that one uses in the work setting to manage or prevent work-related stress, reduce the risk of burnout, and maximize performance and job satisfaction (Butler et al., 2019). More research has come out in the past 10 years that has shown that mindfulness is beneficial in reducing stress. This project also studies if teachers are able to implement mindfulness practices throughout their day, and if these mindfulness practices are beneficial for them.

This study is relevant to the researcher because they are the principal of Middle Paxton Elementary School in Central Dauphin School District. He has seen the impact of stress on teachers within the workplace. The district has issued the panorama survey for the 2018-2019 and 2019-2020 school year. The researcher has previously analyzed the data, which shows teachers do have variables, which cause stress both in the workplace and outside the workplace. He has seen the benefits of mindfulness, as one of his teachers has embraced these tactics and has indicated that they have been useful. He has also implemented mindfulness in his own life. He has observed the impact of Coronavirus on the school, by having to call multiple families to tell them that they must quarantine for 14 days. Coronavirus has personally affected the researcher with family members being unable to attend holiday gatherings, friends and family not being able to visit one another, and multiple family members contract Covid-19.

The focus of this research study is to analyze which factors affect the stress of elementary school teachers. The Central Dauphin School District has focused on the

importance of teachers' social-emotional well-being over the last few years by doing professional development days to educate staff. The district has also done the Panorama survey, which helps identify possible stressors within the workplace. The first research question directly correlates with this initiative to gain an understanding of teacher stress.

The study also examines the effectiveness that mindfulness activities have on reducing stress for elementary teachers. This will be a commitment from the volunteers who participate in the mindfulness intervention. They will watch a video each week and record a journal of their mindfulness experiences as well as their stress levels. Each participant can choose how much they implement the mindfulness-activities presented to them. This may be an uncontrolled variable to the researcher, which could alter results of the second research question.

Lastly, the study investigates how virtual learning impacts teachers' stress level at the elementary school. As mentioned previously in this section, the teachers and staff at Central Dauphin School District have had five different models of teaching within a fiscal year. Distance learning is brand new to these teachers, which could influence the social-emotional health of teachers. This serves as the catalyst for the third research question.

Based on teacher stress surveys, mindfulness activities being presented to the volunteers, and the Covid-19 pandemic forcing teachers to teach virtually, the following research questions will be used:

Research Question 1. What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?

Research Question 2. How does the implementation of mindfulness activities affect elementary school teacher stress level?

Research Question 3. How does using a distance-learning model due to coronavirus affect elementary teacher stress?

Setting & Participants

Central Dauphin School District is located in Harrisburg, Pennsylvania. It is within the county of Dauphin in the south central area of Pennsylvania. The district itself is a mix of urban and suburban areas with 95,000 residents. There are approximately 12,000 students in the entire district. The school district is the ninth largest school district in the Commonwealth, and is the largest of the 10 school districts located in the county. It encompasses an area of 118.2 square miles, and includes three boroughs, which are Dauphin, Paxtang and Penbrook. There are four townships that include Lower Paxton, Middle Paxton, Swatara and West Hanover. Central Dauphin School District has thirteen elementary schools, four middle schools and two high schools.

This action research project was conducted at Middle Paxton Elementary School, within the Central Dauphin School District. Dauphin Borough and Middle Paxton Township make up the attendance area for the Middle Paxton Elementary School. The Dauphin-Middle Paxton community is a scenic area next to the Susquehanna River. It is north of the city of Harrisburg, Pennsylvania. It is bordered by the river on the south, and Peter's Mountain on the north, which is part of the Appalachian Mountains. There are many creeks in the area: Fishing, Clarks, and Stoney are the three main creeks and each is located in a valley. The physical features of this area blend together to create a

picturesque setting. This is important because it shows how rural the community and student population are, compared to most of the other urban schools within the district.

Middle Paxton Elementary School has 250 students in grades kindergarten through fifth grade. Of those students, 92.4% of the students are Caucasian, 6.4% are African American, 0.8% are Asian, and 0.4% are Native American. Thirty-one point two percent are economically disadvantaged. The 31% economically disadvantaged is important because according to Henderson (2017), "Unfortunately, suspension disproportionately impacts ethnic minority (e.g., African American and Hispanic) and economically disadvantaged students." Henderson (2017) also states, "Students who are economically disadvantaged may have limited resources and may be left to "hang out" in their communities to face a number of risks." Fifteen students (6%) are special education students with a learning disability. One student (0.4%) has a Section 504 of the Rehabilitation Act plan, which in this case is specific to a food allergy rather than academic or social concerns. A summary of this data is depicted in Table 1.

Table 1

Student Demographics

Characteristic	No. Students (N=250)	% Participants
Race		
Caucasian	231	92.4%
African American	16	6.4%
Asian	2	0.8%
Native American	1	0.4%
Economically Disadvantaged	78	31.2%
Special Education	15	6%
Section 504	1	0.04%

There are 14 classroom teachers, and approximately 30 additional staff members within the building. This includes special education, library, music, art, physical education, English Language Learning, and gifted teachers.

At the school faculty meeting on September 22, 2020, the researcher informed all of the staff about his study. The researcher sent them a follow-up email that included a Google Forms link. This link included the informed consent, and the Stress Related Survey (Appendix A). The teachers used their emails to sign into Google Forms, but their names were not recorded for the survey. The survey was sent to 44 staff members at Middle Paxton Elementary School. Thirty-four of those staff members responded, and all 34 agreed to participate in the study. Twenty-seven (79%) of the participants were women, 7 (21%) were men. Of the participants, 24 (71%) of them had achieved a Master's Degree, while 10 (29%) achieved an undergraduate degree. The most experienced teacher had 33 years' experience. The least experienced teacher was in their first year. Of the thirty-four participants, five of them had 7 years' experience, which was the most of any experience level. On average, participants had 13.9 years' experience in the field of education.

In this study, nine of the participants were specials teachers. This includes music teachers, art teachers, physical education teachers, and librarians. Seven teachers were in the category of third-fifth grade teachers. Six teachers were considered specialists. These included reading specialists, data and instruction specialists, behavior specialists, counselors and school psychologists. Five teachers taught in grades Kindergarten-second grade. Five staff members were considered "other." The "other" groups included

paraprofessionals and social workers. Lastly, two participants were special education teachers. A summary of these demographics are depicted in Table 2.

Table 2

Teacher Demographics: Numbers and Percentages of Teachers Gender, Educational Levels, Years of Experience, and Specialty

Characteristic	No. Teachers (N=34)	% Participants
Gender		
Female	27	79%
Male	7	21%
Education Level		
Bachelor's Degree	24	71%
Master's Degree	10	29%
Years of Experience		
Less than 5 years	4	12%
5-12 years	11	32%
13-19 years	8	24%
20-25 years	4	12%
26 years or More	6	17%
Did Not Answer	1	3%
Specialty		
Specials (Music, Art, Etc.)	9	26%
Grades 3-5	7	21%
Specialist (Reading, Etc.)	6	17%
Grades K-2	5	15%
Other	5	15%
Special Education	2	6%

On September 29, 2020, the district curriculum department sent out the Panorama survey to all staff in Central Dauphin School District. The staff had until October 23, 2020 to complete the survey before it was closed. The researcher had access to the data at Middle Paxton Elementary School. The researcher gathered and analyzed the data.

At the faculty meeting on February 4, 2020, the researcher told everybody about the mindfulness intervention that he would be conducting. It was explained that it would be a voluntary activity that would last 8-weeks. They would complete a journal at the end of each week, and then a post survey upon the conclusion of the 8-week intervention. The researcher followed this up with an email on February 4, 2020, to all 44 staff members that included a Google Form that contained the informed consent, and an agreement to participate in the study or not. The researcher followed that up with another email on February 8, 2020 as another opportunity to sign up for the intervention. Only three of the 44 staff members replied, and all three said yes to the study.

On February 22, the three participants that agreed to participate in the mindfulness intervention received a video explaining the first week of mindfulness practices they would be completing. The researcher created these videos using Screencastify. The videos walked the participants through the specific website they would be utilizing for their weekly activities. The researcher also spoke on the video, explaining how to navigate the site and explained any mindfulness activities available to them. The weekly mindfulness activities are broken down in Appendix B. The participants received a new video update, with new activities, every Monday for 8 weeks, from February 22, 2020 until April 12, 2020. The researcher also presented the weekly journal (Appendix C) to all participants in the mindfulness intervention. This journal was to be completed at the end of each week during the intervention, and submitted through google forms. The researcher gathered and analyzed the responses. The data collected for the mindfulness intervention helped provide and answer to the following research

question: How does the implementation of mindfulness activities affect elementary school teacher stress level?

On April 15, 2021 the curriculum department sent out the end of the year panorama survey to all staff. The teachers had until May 7, 2021 to complete the survey. The researcher gained access to the survey results, at which time he could analyze and compare the data from September and May. This would assist in answering the research question: What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?

On May 18, 2021 the researcher sent out the post stress survey (Appendix A) to all 44 members of the Middle Paxton Elementary School staff. It was sent through Google Forms. This link included the informed consent, and the Stress Related Survey (Appendix A). The teachers used their emails to sign into Google Forms, but their names were not recorded for the survey. The data collected from the pre and post survey, along with the Panorama surveys helped the researcher answer the research question: What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?

On April 28, 2021 the researcher sent out the distance learning survey (Appendix E) to all 44 members of the Middle Paxton Elementary School. It was sent through Google Forms. This link included the informed consent, and the distance learning survey (Appendix E). The teachers used their emails to sign into Google Forms, but their names were not recorded for the survey. The data collected from the distance learning survey helped the researcher answer the research question: How does using a distance-learning model due to coronavirus affect elementary teacher stress?

Intervention & Research Plan

When formulating the plan for the mindfulness intervention, the literature review indicated that teachers did not have the tools to handle the stress that is thrust upon them in the teaching profession.

> If teachers do not possess skills to positively adapt to stress, they may experience increased stress. Increased stress might lead to more negative outcomes, most notably, the experience of a pattern of emotional exhaustion progressing to burnout, decreased empathy toward others, feelings of fatigue, loss of compassion, becoming experientially avoidant (avoiding internal thoughts, feelings, and experiences), and reduced effectiveness, which can further exacerbate the stress teachers feel. (Csaszar, 2012; Hinds et al., 2015; Yu et al., 2015)

In a study by Hoffman et al. (2010), a meta-analysis was conducted of 39 studies featuring mindfulness-based activities. They found a correlation between using mindfulness and reducing stress, anxiety and depression. Mindfulness was found to reduce negative mood symptoms, anxiety, and stress. Mindfulness was particularly effective with patients who exhibited anxiety and mood disorders. "Schoolteachers are among the professions with particularly high demand on emotional regulation (ER) skills, which are necessary for the successful management of challenging student behavior and for coping with their own emotional states" (Skinner & Beers, 2016).

This led the researcher to focus on mindfulness as an intervention to relieve stress for teachers within the school building. The research plan for this Capstone Project involves collecting quantitative and qualitative data through multiple surveys and a

journal. The researcher contacted the superintendent of Central Dauphin School District to ask permission to do the study. The superintendent granted permission for the researcher to use the Panorama survey, a pre and post stress related survey, a mindfulness intervention, a mindfulness survey, mindfulness weekly journals, and a survey on distance learning. On September 8, 2020, the researcher received a letter from California University of Pennsylvania giving him IRB approval (Appendix F).

The research began with the staff completing a stress survey in September of 2020. This was a voluntary pre-survey to get a baseline of the stress level of the staff, and what stressors affect them. The following tools were combined into one survey for ease of completion for the participants (see Appendix A):

- Teacher Stressors (Mapfumo et al., 2012)
- Perceived Stress Scale (Cohen & Janicki-Deverts, 2012)
- Self Care Assessment (Pearlman, & Saakvitne, 1996)

The staff also completed a district-issued Panorama survey. The purpose of this voluntary survey is to identify factors that affect teachers' social-emotional levels at the workplace. The researcher gathered all of the information presented in both surveys, and analyzed the data. The researcher compiled this into baseline data for the study.

Midway through the school year, in February 2021, the researcher sent out the informed consent to all staff at Middle Paxton Elementary School. This granted permission to include staff members in an 8-week mindfulness intervention. The intervention included eight different websites and applications that contained mindfulness activities the volunteers can utilize. At the beginning of each week, the researcher made a video on Screencastify that showed the website that included the interventions for that

specific week. The researcher spoke on the Screencastify and explained the different interventions that the volunteers could use for that week. Each video was roughly 2-5 minutes. The researcher emailed the website and Screencastify video to the volunteers individually to ensure confidentiality as to who was participating. The volunteers could choose which mindfulness activities that were presented to them to incorporate into their daily activities for the week. Weeks 1 through 4 included websites with mindfulness activities. Week 5 was an article from Lesh, 2020, which the volunteers could read. Week 6 was a website. Weeks 7 and 8, the researcher encouraged the participants to download a mindfulness application for their smart phone that would assist them with mindfulness activities.

At the end of each week, the researcher sent a Google Form that included the weekly journal for the volunteers to complete. The following tools were included in the intervention being sent to participants (See Appendix B):

- Week 1 – 1 Minute Mindfulness Exercises (Adapted from Stewart-Weeks, 2016)
- Week 2 – Mindfulness Awareness (Adapted from Mindful Awareness, 2015)
- Week 3 – Seven Classroom Mindfulness Activities (Adapted from Burnett, 2020)
- Week 4 – Helpful Brief Mindful Exercises (Adapted from Lifeworks, 2019)
- Week 5 – Don't Forget About Yourself (Adapted from Lesh, 2020)
- Week 6 – Ten Mindfulness Strategies for Educators (Adapted from Best & Fagell, 2018)
- Week 7 - Mindfulness Coach Application for phone

- Week 8 - Headspace Application for phone

At the end of the 8-week intervention, the researcher sent the participants the Post Intervention Survey (See Appendix D), which gathered information about the participants experience with the intervention and if they plan on using mindfulness in the future.

At the end of the school year, the researcher sent out the post-survey to staff at Middle Paxton. This is the same voluntary survey the staff completed in September. The researcher compiled this data and compared it to the baseline information sent in September. Lastly, the researcher sent a distance learning survey to the staff on April 28, 2021. This voluntary survey has questions pertaining to the benefits and obstacles that are encompassed within distance learning throughout the school year. The researcher gathered all of the information and analyzed the data.

The fiscal implications in this study were very low for the researcher, and the staff members involved. This study will not cost the researcher or the volunteers any expenses directly out of pocket. The Central Dauphin School District did have to fund some of the tools used. The use of Zoom and the Panorama survey are already funded by the district, and the teachers have had access to these in the past. All participants in the study are voluntary, so they will be giving up some time to fill out the pre and post survey. The participants in the mindfulness intervention group will be giving up time to watch the weekly videos and to complete the weekly journals.

The Panorama survey is funded through a (PCCD) Pennsylvania Commission on Crime and Delinquency meritorious grant that the district has received. This was School Board approved two school years ago, when the district first received the grant. The surveys and professional development that coincide with the survey results cost the

district $45,000 with the grant funds. The district received a little more this year and were able to budget for the addition of Social Emotional Learning, Equity subscales, and professional development. This is something the district was not able to do before this school year. The district has 50 licensed users with Zoom. Administrators receive the licenses. This allows the district to manage all the teacher accounts, which are free. It costs the district $4,000 a year. The researcher will be using Zoom to communicate with teachers virtually.

Research Design, Methods & Data Collection

A mixed-methods research approach was selected for this action research study because the data that was collected and analyzed within the research was both quantitative and qualitative data. Within the three research questions, participants had to fill out surveys. These surveys included Likert scales, open-ended questions, and multiple-choice questions. The pre and post surveys, along with the Panorama pre and post surveys had quantitative questions measuring teacher stressors, teachers perceived stress levels, and teachers' self-care. Quantitative data was used in the eight-week mindfulness intervention to rate the teacher's stress. Quantitative data was also used in the distance learning survey to determine the effectiveness of distance learning.

Qualitative data was collected during the eight-week mindfulness intervention using open-ended responses for participants to evaluate the effectiveness of the intervention. The weekly journal during the mindfulness intervention used open-ended responses and reflection for qualitative data. The distance learning survey had open-ended responses to collect qualitative data on the effectiveness of distance learning.

This study relied on a pre-survey and post-survey given to the voluntary participants of Middle Paxton Elementary school. The survey began with the informed consent. Upon agreeing to the informed consent, the survey asked demographic questions such as gender, years of service in education, position in the building, and education level. The survey was broken up into three sections. The sections included teacher stressors, perceived stress scale, and a self-care assessment. The survey was a combination of surveys that have been previously used to analyze stress in the workplace, specifically in the school setting. The first section of the survey was adapted from Mapfumo et al, (2012) which included ten sources of possible stress. The participants filled out a Likert scale of 1-5 to indicate their current stress level based on these sources. The Likert scale ranged from "not a source of stress" to "severe source of stress." The second section of the survey was adapted from Cohen and Janicki-Deverts (2021). This also used a Likert scale of 1-5 with possible stressors. The range of this section of the Likert scale was "never" to "very often." The third section of the pre and post survey was adapted from Pearlman and Saakvitne (1996). This portion of the survey focused on the participants' self-care. It included nineteen questions regarding self-care and a Likert Scale of 1-5 with a range that consisted of "frequently" to "it never occurred to me."

The following is a timeline of dates that the researcher proposed during data collection and data analysis as it related to each specific research question:

Research Question 1 (RQ1). What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?

Research Question 2 (RQ2). How does the implementation of mindfulness activities affect elementary school teacher stress level?

Research Question 3 (RQ3). How does using a distance-learning model due to coronavirus affect elementary teacher stress?

Phase One: September 2020

- Send out Stress pre-survey with consent forms (RQ1)
- Collect surveys through Google Forms (RQ1)
- Analyze data (RQ1)
- District sends out Panorama Survey to all staff (RQ1)
- Analyze Data (RQ1)

Phase Two: February 2021 to April 2021

- Send out Mindfulness consent forms (RQ2)
- Send out researcher created weekly videos every Monday to participants (RQ2)
- Collect weekly journals through Google Forms (RQ2)
- Collect Post Mindfulness survey and analyze data (RQ2)

Phase Three: May 2021

- Send out Stress post-survey with consent forms (RQ1)
- Collect surveys through Google Forms (RQ1)
- Analyze data (RQ1)
- Send out Distance Learning survey with consent forms (RQ3)
- Collect surveys through Google Forms (RQ3)
- Analyze data (RQ3)
- District sends out Panorama Survey to all staff (RQ1)
- Analyze data (RQ1)

Validity

The purpose of this section is to ensure the validity of the action research. Hendricks (2017) mentions four criterial for validity, which are credibility, transferability, dependability, and conformability. The researcher ensured validity by following these four criteria throughout his research.

First, credibility refers to the accuracy of facts, findings, interpretations, and conclusions (Hendricks, 2017). The validity of the research was maintained by ensuring that no participants in the stress survey, mindfulness surveys, or panorama surveys were ever mentioned by name. All data collected by the researcher was unidentifiable, and every participant was given informed consent prior to participation. The weekly videos were sent directly to the participants email address for them to access. The videos were sent individually, so the participants were not able to identify anybody else who volunteered to participate. The weekly mindfulness reflection journal was completed on Google Forms, so the researcher could not identify which participant answered the questions.

To further ensure more validity within the research and results, the intervention occurred over an eight-week period to warrant a prolonged data collection with persistence. There were two pre and post surveys used to enhance the amount of data collected. The pre and post surveys were primarily methods to evaluate teacher stressors, stress levels, and teacher self-care over a period of time.

Another factor of validity is transferability or the ability to generalize results across different settings, contexts, and individuals (Hendricks, 2017). The demographic data collected was part of the pre and post survey to provide the context of gender, years

in education, educational degree, and job specialty. The participants included a variety of job responsibilities within the teaching profession. All of these factors could contribute to differing stress levels depending on experience, knowledge, position, and income.

Dependability, or the replicability of findings to other groups or settings, was also used in the research plan and design (Hendricks, 2017). The researcher triangulated the data by using multiple measures of data. The Likert scale, open-ended questions, weekly journals, along with an intervention group were multiple sources of data. This increases the credibility of the findings and deepened the understanding of the data for the action research project.

The final factor of validity used was confirmability, which considers accuracy of results concerning potential researcher bias, motivation, or interest (Hendricks, 2017). This action research was conducted with both an internal member of California University of Pennsylvania, and an external member for guidance. The internal member was Dr. Mary Wolf and the external Member was Dr. Erika Willis. The supporter's role was to give feedback, guidance, editing, and revision to assist in eliminating bias towards the study. The researcher acknowledges bias due to working in elementary schools and witnessing teacher stress. For this reason, names and identification from participants were used to prevent researcher bias and influencing data interpretation. The researcher did not have experience with mindfulness prior to the study so he was not biased as to whether the practices presented would be beneficial or not.

A potential limitation of this study was that it was voluntary. It was offered to all staff, but not all participated. The mindfulness intervention included only three

participants out of a possible forty-four. This could hinder the accuracy of results with such a small sample size.

Summary

The purpose of this chapter was to look at the purpose of the study, participants and setting, intervention and research design, including methods, data collection tools, and the plan for data analysis. This chapter also explained the methods used to ensure validity throughout the mixed-methods action research study. This focus is all directed to answer the three research questions, which relate to stress in the elementary school, teachers self-care practices during an 8-week mindfulness intervention and the complications that can cause stress while teaching during a pandemic, which forces a distance-learning model. Chapter 4 will provide a description of the results based on the analysis of the data. It will review the quantitative and qualitative data results associated with the three research questions.

CHAPTER 4

Data Analysis and Results

In this chapter, the data analysis and results are presented as aligned to the three research questions that were identified in the previous chapters. The results include quantitative and qualitative data collected from the teachers who voluntarily participated in the study. To address the first question, data obtained through a teacher pre and post stress survey, and a pre and post panorama survey were analyzed to determine relationships between teacher demographic factors and teachers' perceptions of job-related stressors, teachers overall stress levels, and one's ability to implement self-care strategies.

The second research question was addressed by quantitative and qualitative analysis of weekly teacher reflections obtained through teacher submission. There was also a qualitative analysis using the post-intervention reflection to identify common benefits or barriers within the weekly practice of the mindfulness intervention. Additionally, a correlational analysis was conducted to determine the existing relationships between days that participants implemented mindfulness to their stress levels. A comparison was done between the mindfulness intervention group and the participants who did not participate in the mindfulness intervention. The fidelity of the intervention is also presented.

The third research question was addressed by a quantitative and qualitative survey that specifically focused on the distance-learning model to identify the challenges and barriers that coincide with virtual education. Survey results were analyzed, along with teacher demographics to examine teachers' perceptions of the distance learning model, as well as the effectiveness in instructing students virtually.

Data Analysis and Results of the Research Questions

Research Question 1

To address the first research question "What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?", an analysis was done focusing on teacher stressors, teachers' perceived stress levels, and self-care practices. A stress survey was analyzed in September of 2020, and again in May of 2021 to compare the teacher's data in the surveys. The Panorama Survey was also given in the Fall, and again in the Spring to analyze teachers' perceptions of stress and overall satisfaction on the job.

In the fall of 2020, the survey was sent to 44 staff members at Middle Paxton Elementary School. Thirty-four of those staff members responded, and all 34 agreed to participate in the study. Twenty-seven (79%) of the participants were women, 7 (21%) were men. Of the participants, 24 (71%) of them had achieved a master's degree, while 10 (29%) achieved an undergraduate degree. The most experienced teacher had 33 years' experience. The least experienced teacher was in their first year. Of the thirty-four participants, five of them had 7 years' experience, which was the most of any experience level. On average, participants had 13.9 years' experience in the field of education. A summary of these findings is depicted in Table 3.

In this study, nine of the participants were specials teachers. This includes music teachers, art teachers, physical education teachers, and librarians. Seven teachers were in the category of third-fifth grade teachers. Six teachers were considered specialists. These included reading specialists, data and instruction specialists, behavior specialists, counselors and school psychologists. Five teachers taught in grades Kindergarten-second

grade. Five staff members were considered "other." The "other" groups included paraprofessionals and social workers. Lastly, two participants were special education teachers. A summary of the teacher demographics are depicted in Table 3.

Table 3

Teacher Demographics: Numbers and Percentages of Teachers Gender, Educational Levels, Years of Experience, and Specialty

Pre and Post Stress Survey	**SEPTEMBER 2020 (Fall)**		**MAY 2021 (Spring)**	
Characteristic	No. Teachers (N=34)	% Participants	No. Teachers (N=19)	% Participants
Gender				
Female	27	79%	14	74%
Male	7	21%	5	26%
Education Level				
Bachelor's Degree	10	29%	9	47%
Master's Degree	24	71%	10	53%
Years of Experience				
Less than 5 years	4	12%	4	21%
5-12 years	11	32%	5	26%
13-19 years	8	24%	5	26%
20-25 years	5	15%	1	5%
26 years or More	5	15%	4	21%
Specialty				
Specials (Music,	9	26%	5	26%
Grades 3-5	7	21%	5	26%
Specialist (Reading,	6	17%	3	16%
Grades K-2	5	15%	4	21%
Other	5	15%	1	5%
Special Education	2	6%	1	5%

In the spring of 2021, the same 34 teachers were asked to complete the survey. Only 19 of the previous 34 teachers competed the survey. In the Spring, only 10 (53%) teachers with a master's degree completed the survey compared to the Fall, where 24

(71%) of the teachers had a master's degree. Nine of the ten teachers with a bachelor's degree completed the survey in the spring. A summary of these findings are included in Table 3.

When comparing the average responses from the Fall and the Spring, every area of stress dropped in the Spring versus the Fall. The biggest difference was in the area of accommodations/technology. A summary of the results are shown in Table 4.

Table 4

Stress Factor Survey Results

	FALL 2020 (N=34)	**SPRING 2021** (N=19)	**DIFFERENCE FALL to SPRING**
Dealing with Difficult Students	3.00	2.84	**-0.16**
Finances	3.03	2.63	**-0.40**
Workload	3.79	3.21	**-0.58**
Shortage of supplies/materials	2.82	2	**-0.82**
Supervision or Leadership	2.29	1.47	**-0.82**
Accommodations/Technology	3.32	2.05	**-1.27**
Special Education	2.82	2	**-0.82**
Relationship with other staff	2.00	1.42	**-0.58**
Recognition in public eye	2.15	1.47	**-0.68**
Language barriers	2.09	1.53	**-0.56**

Note. (1= Not a source of stress, 2= very mild source of stress, 3=sometimes a source of stress, 4=fairly often a source of stress, 5=severe source of stress)

Digging deeper into the study, the researcher noticed that in the Fall, when comparing the teachers with 0-5 years of experience to the teachers with 26 or more years of experience, the teachers with more experience had less stress reported in 7 of the 10 categories. The categories the veteran teachers did have more stress were: Supervision or Leadership; Accommodations/Technology; and Language Barriers. A summary of these results are in Table 5.

Table 5

Teaching Experience Stress Comparison

FALL 2020 Stress Survey	**0-5 Years Experience** (N=4)	**26 or More Years Exp.** (N=5)	**DIFFERENCE IN STRESS**
Dealing with Difficult Students	2.92	2.6	**-0.32**
Finances	2.72	2.6	**-0.12**
Workload	3.68	3.4	**-0.28**
Shortage of supplies/materials	3.16	1.8	**-1.36**
Supervision or Leadership	1.68	2.4	**0.72**
Accommodations/Technology	2.72	3.6	**0.88**
Special Education	2.24	2.2	**-0.04**
Relationship with other staff	1.48	1.4	**-0.08**
Recognition in public eye	2.16	1.8	**-0.36**
Language barriers	1.32	1.6	**0.28**

Note. (1= Not a source of stress, 2= very mild source of stress, 3=sometimes a source of stress, 4=fairly often a source of stress, 5=severe source of stress)

Upon analysis of the Panorama surveys, 9 teachers responded to the open-ended question, "What has helped you the most in managing work related stress?" Exercise was mentioned 4 times. Mindfulness or finding time for themselves was mentioned 3 times. Spending time with family was mentioned twice. A sample of the responses is listed below:

> "Exercise, sleep, and eating healthy are ways I try to cope with stress. Stress is personally at my highest level this year. This is due mostly to the unknowns with technology and balancing a hybrid model of learning."
>
> "Breathing and meditation techniques, working out and spending time with my family."

That same question was asked in the Spring. Exercise was mentioned 4 times again. Family was mentioned three times. Mindfulness and finding time for themselves was mentioned 4 times. A sample of the responses is listed below:

> "'Unplugging' at the end of the school day and weekends to focus on family."

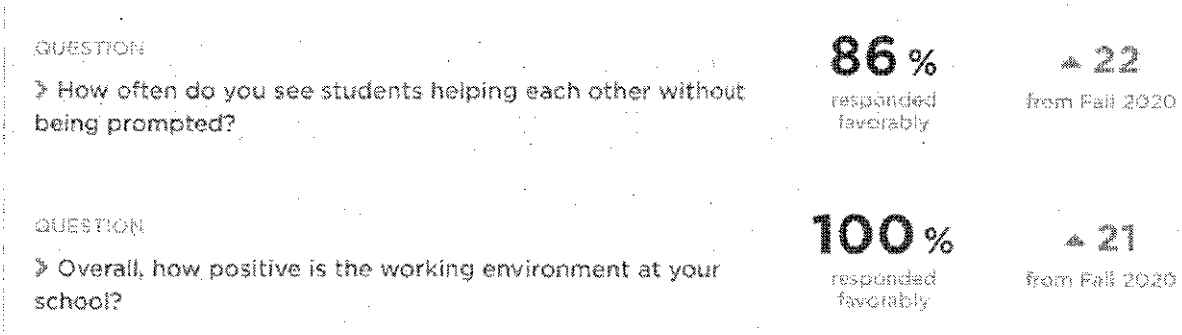
"I am very physically active which helps reduce stress."

"Not bringing it home with me. what happens at work, stays at work. If there is something that I can't/don't get finished with, I know that I can finish it the next day."

When comparing the Fall data to the Spring data in the Panorama survey, there was either an increase in positive responses, or the positive responses stayed the same. Positive responses went up 21% from the Fall (79%) to Spring (100%) when asked how positive the working environment is. When asked how often teacher see students helping each other without being prompted, positive responses went up 22% from the Fall (64%) to the Spring (86%). The results of the survey are shown below in Figure 1.

Figure 1

Panorama Survey Questions



Summary of Results

The results of the pre and post stress survey, along with the fall and spring Panorama survey indicate that teachers felt less stress in the Spring than they did in the beginning of the school year. Teachers with fewer years of experience were more stressed than veteran teachers. Overall, teachers used exercise, mindfulness and alone time, and

time with their family to assist in dealing with stress. Technology was seen as a factor of stress in a variety of forms.

Research Question 2

To address the question, "How does the implementation of mindfulness activities affect elementary school teacher stress level?", a thematic analysis of qualitative data was conducted to identify benefits and challenges to engaging in mindfulness regularly. This process involved a five-phase cycle, which included compiling, disassembling, reassembling, interpreting and making conclusions.

The informed consent to participate in the survey was sent to all professional members of the school. Of the 44 invited, only 3 teachers agreed to participate, creating a 6.8% response rate within the building. The teachers participated for eight weeks. Each week they were given different mindfulness activities to implement, they had a weekly journal to complete, as well as a post intervention survey. Some weeks not all participants completed the weekly journal. Two of the three participants completed the post intervention survey.

Results were gathered from the review and weekly reflections and data from a post-intervention survey. The surveys were completed by participants to obtain qualitative data specific to their personal experiences with mindfulness. The survey also showed the potential impact on their perceptions of work-related stress. Open-ended questions were asked to examine the potential pros and cons associated with the intervention. The weekly reflection forms and post intervention survey were completed through Google Forms. The research questions were compiled into a spreadsheet in order to begin data analysis. The researcher read through all survey responses and recorded

notes. This was done to determine overarching themes within the weekly journal. For each question, data was disassembled and coded respective of the identified themes related to perceptions of stress, job satisfaction and commitment, self-care, challenges in practice, and benefits. The same process was used in analysis of data from the post-intervention survey.

The amount of times participants implemented mindfulness activities was compared to their stress levels for that particular week. The average number of days participants practiced mindfulness was divided by the participants average stress levels. This generated a correlation between the two. Table 6 shows the correlation.

Table 6

Mindfulness: Number of participants, Days Implementing Mindfulness, Stress Level, Day to Stress Correlation

Week Number	Number of Participants that responded	Number of Days Participants Implemented Mindfulness	Participants Stress Level	Days/Stress Correlation
1	3	4	2.67	1.49
2	3	4.33	2.33	1.85
3	2	4	2.5	1.6
4	1	5	1	5
5	2	5	1.5	3.33
6	2	6.5	1	6.5
7	1	5	2	2.5
8	2	6	1.5	4

Note. (1=very low, 2=low, 3=moderate, 4= high, 5=very high)

The chart indicates that week 6 had the best correlation (6.5). Week 1 was the worst correlation (1.49). The number of days the participants practiced mindfulness trended upward and their stress levels trended downward as a group. This indicates that there is a positive correlation between the amount of days a participant practiced mindfulness, the lower their stress level was indicated.

The researcher analyzed the stress study in the spring and compared the participants that completed the mindfulness intervention to the participants who did not participate in the mindfulness survey. Of the three participants that completed the mindfulness intervention, two of them completed the stress survey in the spring. In 9 of the 10 categories, the participants who did not complete the mindfulness intervention had less stress than the participants who did complete the mindfulness intervention. The area of accommodations/technology was the only category that the mindfulness intervention participants felt less stress. The results are shown in Table 7.

Table 7

Stress Levels of Non-Intervention Compared to Intervention

Stress Survey in the Spring	**Non-Intervention** (N=17)	**Intervention** (N=2)	**DIFFERENCE Non vs. Intervention**
Dealing with Difficult Students	2.65	4.5	**1.85**
Finances	2.47	4	**1.53**
Workload	3.12	4	**0.88**
Shortage of supplies/materials	1.94	2.5	**0.56**
Supervision or Leadership	1.47	1.5	**0.03**
Accommodations/Technology	2.12	1.5	**-0.68**
Special Education	2.00	2	**0**
Relationship with other staff	1.35	2	**0.65**
Recognition in public eye	1.41	2	**0.59**
Language barriers	1.53	1.5	**-0.03**

Note. (1= Not a source of stress, 2= very mild source of stress, 3=sometimes a source of stress, 4=fairly often a source of stress, 5=severe source of stress)

Benefits of Mindfulness

Upon completion of the eight-week mindfulness intervention, participants were asked to complete seven open ended questions. They spoke about benefits of mindfulness, most effective mindfulness activities, least effective mindfulness activities, and their perceived stress level before, during, and after the intervention. One participant

specifically mentioned the two mindfulness phone apps as being "easy to use and great reminders." Both participants that completed the post survey indicated they would continue implementing mindfulness activities into their daily lives on a regular basis. A sampling of comments highlighting benefits of mindfulness include:

> "I think they helped me to become more focused on strategies to help me relax!"
>
> "I have definitely been less stressed outside of work which is the main time I was practicing these activities. I have been much more able to just relax and be completely present and okay with doing nothing."
>
> "I loved doing these. It was nice to be held accountable on a weekly basis, because it is easy to get caught up and forget to be mindful, which is ironic. It got easier to remember and became habitual over time. once it was a habit it really enhanced my ability to be present and to be aware of myself, specifically when I am stressed or overwhelmed. I liked using these practices to help with this!"

Both teachers that participated said that they benefitted from the mindfulness activities. Meditation and deep breathing were specific to one participant as beneficial. Proper diet and exercise were mentioned by both participants as beneficial activities in reducing stress. Both participants noted that the mindfulness activities were beneficial in easing their stress, specifically related to work. A sampling of comments highlighting benefits of mindfulness directly related to work include:

> "I think that overall I have a positive attitude towards work, but I think that mindfulness activities helped me to shift my mindset in terms of stress and feeling like I need to get everything done and do extra work. Mindfulness helped me re-set and focus on my personal life outside of work instead of trying to bring work home and stressing about work outside of school."
>
> "Yes, there are always times where you need to take a deep breath or find coping strategies to eliminate stress. These helped me to gain strategies weekly to implement and practice."

Least Effective Strategies

The participants were asked what the least effective mindfulness strategies were, or challenges they faced during the intervention. The "stroking your hands" and "mindfully eating" activities were mentioned as not being effective. One participant noted, "I don't know why but they were harder for me to do and take seriously and feel like I got anything out of them." Participants mentioned that the weekly interventions were difficult to remember to implement. A sampling of their responses is below:

> "I realized it does not come naturally to remember to do these things, and to practice mindfulness. I have to train myself to remember until it becomes a regular practice. I used to do lots of yoga, which was a set-aside time for me to implement things like mindful breathing. Now I do other workouts, so I learned that if I do not set aside times for myself, then I won't do it. I am going to try to work on certain times and places where I practice these things."

> "I have been doing mindfulness for years, but I still find it a challenge to commit too."

Summary of Results

In summary, there was a relationship between the amount of days a participant practiced mindfulness with their perceived stress level. The more days they practiced mindfulness activities, the lower their stress level was. Participants found that implementing mindfulness decreased their stress both outside of work and at work. One of the challenges the participants reported was to remember to do mindfulness activities each day.

Although there was a positive relationship with participants stress levels and mindfulness, the results indicated that the intervention group actually had a higher stress level than the non- intervention group. A challenge with the research was that there were only three participants that agreed to complete the mindfulness study. Only two finished

the study, completed the post intervention study, and completed the post stress survey. This impacted the sample size and fidelity of the results.

Research Question 3

To address the third question, "How does using a distance-learning model due to coronavirus affect elementary teacher stress?", an analysis was done focusing on results that were gathered from a survey completed by participants to obtain qualitative data specific to their personal experiences with distance-learning. Open-ended questions were asked to examine the potential pros and cons associated with online instruction. The survey was completed through Google Forms. The survey questions were compiled into a spreadsheet in order to begin data analysis. The researcher read through all survey responses and recorded notes. This was done to determine overarching themes. For each question, data was disassembled and coded respective of the identified themes related to the teacher's perceptions of their effectiveness, the needs of students, and their overall feelings towards the distance learning model. 21 teachers completed the survey. A summary of teacher demographics that completed the distance learning survey are in Table 8.

Table 8

Teacher Demographics: Numbers and Percentages of Teachers Gender, Educational Levels, Years of Experience, and Specialty

Distance Learning Stress Survey		
Characteristic	No. Teachers (N=21)	% Participants
Gender		
Female	15	71%
Male	6	29%
Education Level		
Bachelor's Degree	13	62%
Master's Degree	8	38%
Years of Experience		
Less than 5 years	4	19%
5-12 years	6	29%
13-19 years	5	24%
20-25 years	2	9%
26 years or More	4	19%
Did Not Answer	0	0%
Specialty		
Specials (Music, Art, Etc.)	6	29%
Grades 3-5	6	29%
Specialist (Reading, Etc.)	3	14%
Grades K-2	5	24%
Other	0	0%
Special Education	1	5%

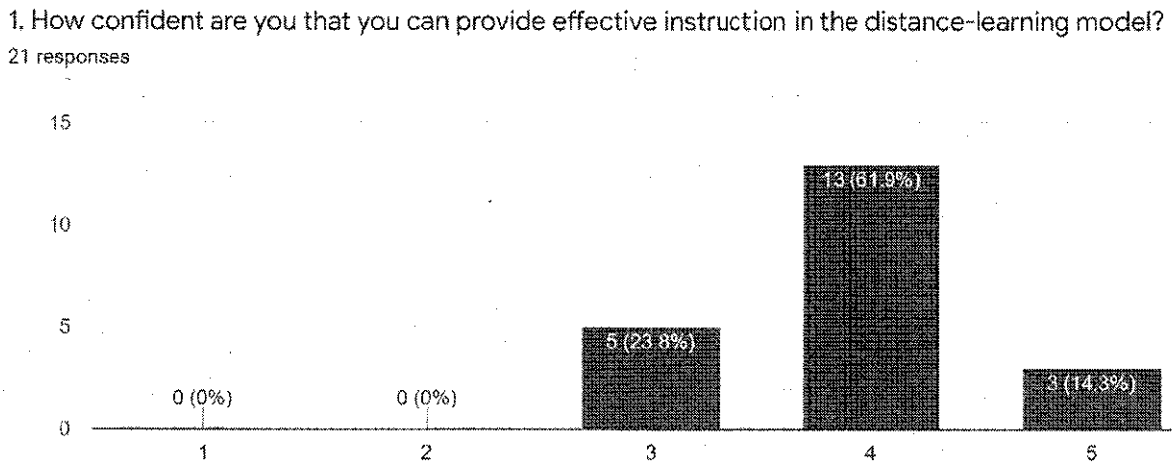
Benefits with Distance Learning

Teachers were asked how confident they felt about implementing a distance learning model. Seventy-six percent responded with a 4 (Quite Confident) or a 5 (Extremely Confident), which indicated that teachers were confident they could provide the instruction to the students. Results are shown in Figure 2 below. Of the 5 teachers that selected 3 (somewhat confident), 3 of the 5 were male teachers. The results show that

28% of the study was compromised of male teachers, and 60% who answered "somewhat confident" were males. No males answered, "extremely confident," which indicates that the male teachers were not as confident when implementing a distance learning model.

Figure 2

Teachers Distance-Learning Confidence



(1=Not at all concerned, 2= Slightly concerned, 3= Somewhat concerned, 4= Quite concerned, 5= Extremely concerned)

When participants were asked what is working during the distance-learning model, a variety of responses were recorded. Having a consistent schedule with zoom meeting times was reported 4 times. Individualized learning, which was not mandatory for teachers to implement, was mentioned 3 times. Teachers would do breakout rooms or one-on-one lessons with struggling students. A sample of responses is below:

> "Consistent zoom times and the weekly agenda format are both working well."
>
> "Teachers have become more knowledgeable with technology that can be used both remotely and in-person. Also, the Google Classroom setup at elementary school seems to be fairly easy for everyone to access."
>
> "Consistency and clear expectations. Teaching virtually the entire year, I knew that I needed to keep a consistent schedule, limit the amount of programs I

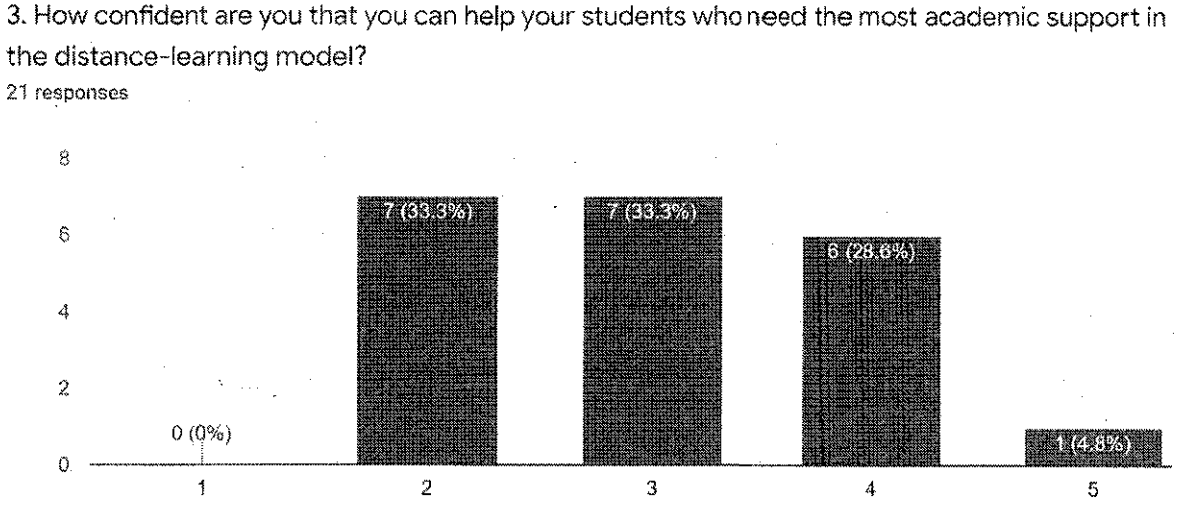
implement, and make expectations for each day clear for both students and parents. This has allowed students to gain responsibility in completed their own work independently."

Concerns with Distance Learning

When asked about helping students who need the most academic support, 66% selected either 2 (slightly confident) or 3 (somewhat confident). This indicated that teachers felt they were not able to reach students with academic needs as well as they would have liked. When digging deeper, out of 6 males that completed the survey, 4 selected "2" and two selected "3." This indicates that the average score of males completing this question was 2.33, and the average score for females completing this question was 3.33. The results are in Figure 3.

Figure 3

Teachers Confidence in Academic Support in Distance Learning Education



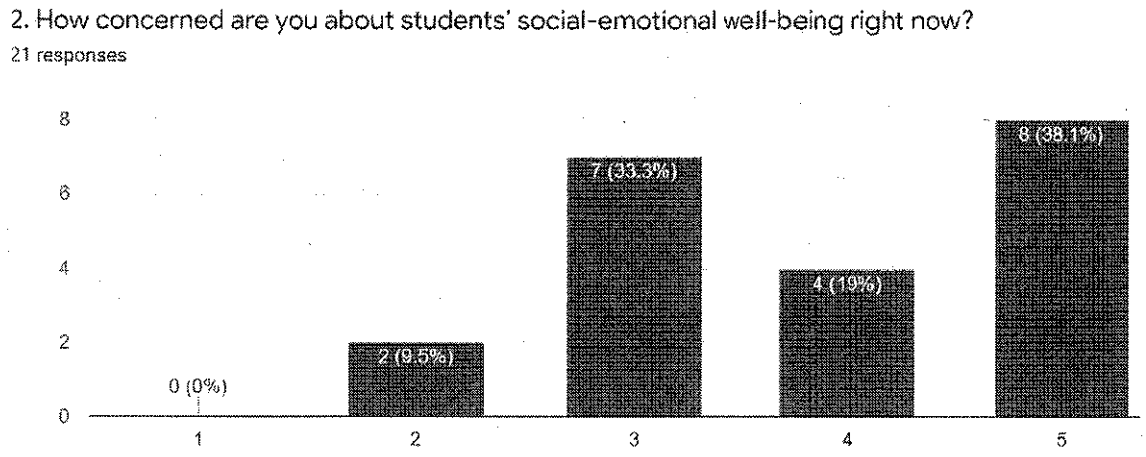
(1=Not at all concerned, 2= Slightly concerned, 3= Somewhat concerned, 4= Quite concerned, 5= Extremely concerned)

When asked about how concerned teachers are about students' social emotional well-being, 38% of them selected "extremely concerned." 19% of them selected "quite

concerned." That makes 57% of the participants who completed the survey quite concerned or higher regarding students' social emotional well-being. The results are in Figure 4.

Figure 4

Teachers Concern About Students' Social-Emotional Level



(1=Not at all concerned, 2= Slightly concerned, 3= Somewhat concerned, 4= Quite concerned, 5= Extremely concerned)

When asked about a challenge of distance learning model teachers would like to see improved, both attendance and work completion were mentioned 12 times out of 21 participants. Teachers wanted an improved way to hold children accountable with attendance, and work completion. Along with attendance and work completion, 6 teachers mentioned students who would log into zoom and turn their cameras off as being a challenge. A sampling of the responses is below:

> "It is very difficult to effectively assess students. It is impossible to know if students and parents are following the academic honesty agreement that they saw. It is also impossible to know if students are putting forth their best effort on assignments and assessments when most things are done independently."
>
> "Difficulties in distance-learning right now include the following: getting students to show up for class, getting students to be actively involved in their

> learning...meaning they don't turn their cameras on to be a part of class, they don't participate, and they don't complete their assignments, parents not ensuring their child is actually completing his/her assignment, teachers not receiving enough training for distance-learning, difficulties in presenting some types of information/skills, and sometimes, only having 15-20 minutes to try and cover material you want to cover."

> "Students don't always come and when they do they do not participate or keep their screens on. There is nothing we can do when this happens."

Summary of Results

In summary, teachers were concerned about the students' social emotional well-being during distance learning. They found that accountability and work completing to be something that needs to be improved. Teachers did not feel very confident that they could reach students with academic needs. Female teachers did feel more confident than male teachers about providing general instruction to the students. Keeping a daily schedule and consistent zoom times helped manage virtual learning. Further discussion of conclusions will be presented in Chapter V.

CHAPTER 5

Conclusions and Recommendations

Chapter 5 discusses the conclusion the researcher reached regarding the effectiveness of the intervention. Each research question will be analyzed individually, similarly to the results in Chapter 4. The first section of this chapter will review the existing relationship between teacher characteristics and their perceptions of stress, self-care practices, and job satisfaction. The second section of the chapter will investigate mindfulness, and the impact it had on teachers who implemented it consistently over an eight-week period of time. The third section of the chapter will focus on the distance learning model, and the limitations and benefits of virtual learning. In each section, the fidelity of the research will be analyzed, as well as challenges and barriers that were faced during the research. Recommendations for future implementation of an action research project like this will be addressed as well.

Research Question 1

The first research question asked, "What factors affect the stress level of elementary school teachers and their overall satisfaction on the job?" The methodology and data analysis were designed to analyze existing relationships with elementary teachers focusing on teacher stressors, teachers' perceived stress levels, and self-care practices. The Perceived Stress Scale is a generalized measure which provides insight into the degree in which one appraises life situations as stressful. Items on this scale ask about feelings and thoughts and are designed to assess how unpredictable, uncontrollable, or overwhelming respondents' find their experiences (Cohen et al., 1983). Teacher demographics were examined both during the pre-stress survey and post-stress survey.

The researcher also examined the Panorama Survey in the Fall and the Spring, which gave a broader sense of the working environment within the building.

The Panorama survey indicated that teachers had more positive responses in the Spring compared to the Fall. When asked about how positive the working environment is, there was a 21% increase in positive responses from the Fall to the Spring, going from 79% in the Fall to 100% in the Spring. These results show that the working environment improved from the Fall to the Spring. In order to answer the research question, the researcher had to analyze the results of the pre and post stress survey to find the factors that impacted these results.

When analyzing the results of the stress surveys, the researcher found that every category the participants were asked about that causes stress dropped from the fall (pre-survey) to the spring (post-survey). The category of *accommodations/technology* was 3.32 in the fall, which fell between "sometimes a source of stress" and "fairly often a source of stress." In the Spring the participants average response was 2.05, which was "very mild source of stress." This indicates that the teachers felt more comfortable with technology as the school year progressed. They were forced to use technology when the covid-19 pandemic first started, but results indicate that they had much less stress as they continued using the technology tools.

In the Fall, the category of *shortage of supplies/materials* was ranked 2.82, which is "sometimes a source of stress." In the Spring this category was rated at 2.0, which is "very mild source of stress." The district made an effort to pass out Chromebooks to all students who needed them throughout the year. By January of 2021, all students in the district should have had access to a Chromebook, which would have allowed them to

switch to distance learning in a much easier manner than in the Fall when not all students had the access to these materials. Digging deeper, the results indicate that in the spring, teachers with a master's degree rated this category at 1.54, which is between "not a source of stress" and "very mild source of stress." On the contrary, teachers that had an undergraduate degree rated this same category at 2.62, which is "sometimes a source of stress." Teachers with less education found it more stressful when looking at the shortage of supplies/materials than teachers with more educational background.

The results also indicated that in the Fall, teachers with 0-5 years of experience had more stress in 7 out of the 10 categories in the survey than teachers with 26 or more year of experience. Veteran teachers had more stress with supervision/leadership; accommodations/technology; and language barriers. The teachers with 0-5 years of experience indicated more stress in the following categories: difficult students; finances; workload; shortage of supplies/materials; special education; relationships with other staff; and recognition in the public eye.

Similar data occurred in the Spring as well. Teachers with 0-5 years of experience had more stress in 8 of the 10 categories. The category of Accommodations/technology was once again more stressful for the veteran teachers compared to the less experienced teachers. The only differences in the Spring compared to the fall was that recognition in the public eye was more stressful for the veteran teachers, while supervision and leadership became more stressful for the teachers with less experience. This showed that there was consistency from the Fall to the Spring as to what both veteran teachers and teachers with less experience felt was stressful in the work environment.

The Panorama survey asked, "what has helped you the most in managing work related stress?" The results indicated that exercise, mindfulness activities, and spending time with the family were the most common responses both in the Fall and the Spring. This indicates that teachers were finding ways to cope with stress consistently throughout the school year.

Fidelity of Research and Limitations

One variable that impacted the fidelity of the research was that 34 participants agreed to complete the stress study in the fall, and only 19 of those 34 completed it in the Spring. This could have impacted the fidelity of the survey as only 56% of the participants that completed the survey in the Fall completed it in the Spring. In the Fall, 24 teachers with a master's degree (71% of the overall participants) completed the stress survey. In the Spring, only 10 teachers with a master's degree (53% of the overall participants) completed the stress survey. When analyzing the data, the researcher was not comparing similar sample sizes due to the lack of participation.

On the contrary, the Panorama Survey had 14 teachers complete it in both the Spring and the Fall. They did not have to answer every question, but this made the fidelity of this survey more accurate than the stress survey.

Another factor that impacted this study was the Coronavirus pandemic. The 2020-2021 school year was greatly impacted by Covid-19. Teachers had multiple learning models throughout the year such as hybrid, in-person, and virtual. Teachers also had to wear masks, implement the rule that students had to wear masks, figure out ways to socially distance all the students in their classrooms, adjust their schedules to incorporate

more handwashing breaks, etc. All of these factors could have led to more stress than a typical school year.

Summary

Teachers experienced a school year unlike any other with multiple models of teaching. They had to go from in-person, to virtual, to the summer break, to hybrid, to virtual, and back to in-person. Throughout this time, they were exposed to children who were sick, or had relatives that were sick and had to be tested for Coronavirus. All of these factors played a role in the perceived stress teachers reported.

The results of the stress survey and the panorama survey indicated that teachers felt less stressed in the Spring compared to the Fall and had a more positive feeling towards the workplace in the Spring versus the Fall. Several factors were examined within both surveys, with the category of *accommodations/technology* being the factor that had the largest differential from Fall to Spring. The comfort level of using technology may have been a reason why the teachers felt less stress when working with technology. Along with technology, the students within the district were given access to the internet and Chromebooks at home by January of 2021, which also could have helped alleviate the stress teachers were facing.

Younger, and more inexperienced teachers were more stressed than older teachers and teachers with more years of experience. This was consistent in both the Fall and the Spring. Although technology was a category that was perceived as stressful, the younger less experienced teachers were able to handle that with less stress than their veteran colleagues.

Research Question 2

The second research question asked, "How does the implementation of mindfulness activities affect elementary school teacher stress level?" The study was a thematic analysis of qualitative data to identify benefits and challenges to engaging in mindfulness regularly over an eight-week period. The researcher analyzed the participants that completed the intervention with the participants who chose to not complete the intervention.

Fidelity of Research and Limitations

Before describing the conclusions regarding the effectiveness of the intervention, the fidelity of the research must be addressed. The informed consent was sent out to 44 professional staff members. Only 3 teachers agreed to participate in the mindfulness intervention. This was 6.8% of the staff, which is a very low sample size. This could be due to teachers being overwhelmed throughout this school year, which included five different learning models, PSSA testing, social distancing due to Covid-19, and possible other personal stressors. It could also be due to teachers not believing in the effectiveness of mindfulness. It was a voluntary study, so the researcher was only able to use the data that was given to him by 6.8% of the professional staff.

The participants were given a weekly survey, and a post survey based on their feelings of stress throughout the mindfulness intervention. There were inconsistencies each week to how many participants completed the weekly survey. All three participants completed the surveys weeks one and two. From weeks 3 through 8, only 1 or 2 participants completed the weekly survey each week. Two participants completed the post-intervention survey. Again, this is a very small sample size in reference to the

number of professionals within the building. Of the two participants that completed the post-intervention survey, one is a teacher with less than 5 years' experience, and the other is a teacher with 5-12 years' experience. This is important because both are considered in the beginning of their careers, which may impact their stress levels during a year with so many variables.

Duration of Intervention and Stress Levels

In review of the correlation between the amount of days a participant practiced mindfulness, and their perceived stress level, there was a positive correlation. The more that participants practiced mindfulness each week, the lower their stress level was indicated. The number of days participants implemented mindfulness ranged from an average of 4 days, to 6.5 days per week. The inconsistency of daily practice is another variable that could have impacted results specific to stress as previous research has suggested consistent practice over time is necessary for maximum benefits (Soler et al., 2014). In addition, while consistency of daily practice varied, the total time engaged in each mindfulness session and total time engaged in mindfulness week to week was not specifically measured. This could cause differences in the actual time spent participating in mindfulness each day, which in turn could potentially impact the outcomes or benefit of the mindfulness implementation. This leads into the next set of results, which indicated that the participants that completed the mindfulness training had a higher recorded perceived stress level on the Stress Survey in the Spring than the participants who did not participate in the intervention.

Intervention Group Compared to Non-Intervention Group

The Stress Survey in the Spring had 19 participants out of a possible 44 possible professional staff members. This is a 43% response rate, which is worth noting that it could impact the overall results of the study. Of those 19 participants, 2 of them were members of the mindfulness intervention study and 17 of the participants did not participate.

The Stress Survey in the Spring asked participants questions about 10 categories of stress they may face and their perceived stress levels in those categories. In 9 of the 10 categories, the non-intervention participants actually responded that they experience lower stress than the intervention participants. In reflection of these findings, it was presumed that teachers who participated in the mindfulness intervention would have lower levels of stress than teachers who did not participate. However, in contrast, the non-intervention group of teachers had lower stress than the mindfulness intervention group. This is also contrary to the literature review and previous research previously conducted before this study. Research on mindfulness-based interventions have suggested benefits of practice in increasing overall well-being and decreasing feelings of stress or burnout. Studies have highlighted positive impacts on teacher self-efficacy and overall awareness of one's feelings and ability to be in the moment (Jennings et al., 2013). This difference could be attributed to the small sample size of the intervention group, the ages of the participants in the intervention group, the years of experience in education within the participants in the intervention group, or other external factors.

The category that had the largest difference was *dealing with difficult students*. The non-intervention group rated it on average at 2.65, which is in between (2) "very

mild source of stress" and (3) "sometimes a source of stress." The two participants in the mindfulness intervention group rated *dealing with difficult students* on average 4.5, which is in between (4) "fairly often a source of stress" and (5) "severe source of stress." As noted earlier in the study, the two participants who did the mindfulness intervention were both considered younger in their career with one having 0-5 years' experience and the other having 5-12 years' experience. This could have impacted the results based on their experience on the job. Another factor that could have impacted the study was the age group of students the intervention group had compared to the non-intervention group.

The second highest discrepancy between the intervention group and non-intervention group was *finances*. The non-intervention group rated this at 2.47, which is in between (2) "very mild source of stress" and (3) "sometimes a source of stress." While the intervention group rated it at a (4) "fairly often a source of stress." This again, could be attributed to the intervention group being closer to the beginning of their careers than the non-intervention group. Another unknown is how much the Covid-19 pandemic impacted the teachers finances.

The one area that the intervention group had less stress was *accommodations/technology*. The non-intervention group average score rated it at 2.12, which is "very mild source of stress. The intervention group rated it at 1.5, which is in between (1) "not a source of stress" and (2) "very mild source of stress." One could assume that based on the age and experience of the participants in the mindfulness intervention, they may have felt more comfortable when using technology than the 17 participants who did not participant in the intervention.

Benefits of Mindfulness

Studies have shown that implementing mindfulness has helped lessen the stress levels in people. "Over the past decades, mindfulness training has been identified as an effective strategy for improving mental health and well-being, including reductions in anxious and depressive mood" (Hofmann et al., 2010). When asked about the benefits of mindfulness in the post intervention survey, both participants in the mindfulness intervention mentioned that they were less stressed at work due to the mindfulness activities. Proper diet and exercise were mentioned by both participants as a benefit, specifically related to work. They mentioned deep-breathing and how mindfulness helped them reset and refocus. In addition, over the course of the eight-week period as well as in the post-intervention survey, comments were made specifically to the benefits of implementing the mindfulness activities. One participant noted that it helped boost their mood and feel less stressed. Results also found that the participants felt the practice of mindfulness was an enjoyable experience, which were like findings by Reiser and McCarthy (2018).

Summary

Although the results of the research indicated that the mindfulness intervention group had more stress than the non-intervention group, there were many variables that played a role in the data. The sample size of 3 participants starting the intervention, with only 2 participants finishing the intervention impacted the results along with the age of the participants, the years of experience of the participants, and possible external factors.

The more the participants practiced mindfulness each week, the less stress they felt during the eight-week intervention. One of the challenges participants reported was remembering to implement mindfulness each day.

While the quantitative data analysis did not reveal as the findings that were expected, qualitative reports find that mindfulness brought positive feelings of self-awareness and calmness to participants. Further, the intervention provided coping strategies that appeared to contribute to the lessening of stress in participants. Of significance, teachers reported that exercise, deep breathing, and consistent usage of mindfulness practices helped calm them and refocus their feelings of stress.

Research Question 3

The third research question asked, "How does using a distance-learning model due to coronavirus affect elementary teacher stress?" The researcher found that the participants had more concerns with distance learning than they noted benefits. When asked questions that had a positive connotation, the responses were not as high on the Likert scales, or the open-ended responses were not as thorough. However, when participants were asked questions that had a negative connotation, the results were typically higher on the Likert scales and the open-ended responses were more robust. This indicated that teachers were stressed due to the distance learning model, which coincides with the literature by Gewertz (2020)

> Stress isn't new to teachers, but what they're experiencing now makes their typical stress seem like a picnic. Driven by a pandemic to the front lines of an unprecedented rush to distance learning, the nation's teachers are scrambling to manage an armful of new challenges. (Gewertz, 2020)

Benefits of Distance Learning

The benefit of this research was that it gathered information that can be used moving forward during distance learning. The open-ended questions enabled the researcher to get a glimpse into the minds of the teachers and their feelings towards virtual instruction. Although the responses were more negative than positive, the responses can be used as learning tools to improve distance-learning in the future.

Consistency with scheduling zoom meeting times was an overarching theme the participants reported as an important factor in successful implementation of distance learning. This enabled the students and the teachers to be on a consistent schedule, which assisted with not only instruction but with parent communication as well. Teachers also noted that this gave the students responsibility because they knew when they had to attend zoom classes.

The other overarching theme the researcher found was that teachers were forced to learn how to teach using technology. According to the results, teachers felt fairly confident providing the instruction with zoom and google docs. Female teachers were more confident than male teachers with implementation and how effective they felt their instruction was for the students.

Concerns with Distance Learning

One of the main concerns with distance learning the teachers reported in the research was the student's social emotional wellbeing. As indicated in Chapter 4, 57% of the participants who completed the survey were quite concerned or extremely concerned with the students' social emotional wellbeing during distance learning. When teachers are concerned about their student's wellbeing, it will add stress to their lives.

Another concern participants discussed during the research was the inability to hold students accountable if they did not do work, or they failed to attend a zoom meeting. When students do not attend school, or do not complete an assignment during regular brick and mortar instruction, the teacher can keep them in from recess, teach them individually, or have them complete it at another time in the building. During distance learning the teachers were unable to enforce any type of make-up work schedule. This could have been due to the students not having the motivation to complete the work or the students having technical difficulties. Either way, teachers felt helpless because there were not enough rules in place to enforce the students to do the work.

Teachers noted that is was difficult to develop relationships with the students during distance learning. Students would show up for zoom when it started and leave when it ended. There was no time for teachers to build relationships with them like they have during regular in-person learning. Along with building relationships, teachers discussed how assessing them was also difficult. This goes together with building relationships because the teachers are unable to discuss things with the students during non-teaching times such as lunch, recess, hallways, etc.

Fidelity of Research and Limitations

The major limitation with this question was that the teachers had to utilize 5 different learning models during the past 15 months of instruction due to Covid-19. The teachers went from in-person, to a distance learning model, to a hybrid model, to distance learning again, to in-person instruction. Individual classes or grade levels also got forced to do virtual learning during the in-person learning, so different teachers experienced different amounts of distance learning.

Another limitation was that 21 of the 44 professional staff in the building completed the survey. That is a 48% response rate. This small sample size may not be indicative of all of the teachers within the building, and their feeling of the distance-learning model. The study was only done in one building within the district, so it is only representative of the participants in this study and not generalizable to other elementary teachers.

Another limitation was the survey itself. The questions were adapted from the 2020 Panorama Educational Survey focusing on distance learning. However, the questions were focused more on the implementation, success, and failures of distance learning. The questions should be modified to reflect the stress levels the teachers were facing during virtual instruction. This would have enabled the researcher to gain more conclusive data to answer the research question more thoroughly.

A factor the researcher noted throughout the study that was both a limitation, and a recommendation was gathering student data to coincide with the research. Within the literature review the researcher noted that standardized tests, the Covid-slide, and distance learning were all factors that could contribute to teacher stress, but also student test scores. Due to the changes in instruction that took place over the 16 months that this research was being conducted, it was determined that any student academic data would be inconclusive if you compared scores from a brick-and-mortar model to a distance learning model. Changing the models of learning multiple times throughout the year, including specific classrooms or grade levels, made any academic data questionable due to multiple variables.

Summary

In summary, teachers did feel stress related to distance learning, as research indicates. The student's social emotional well-being, and student accountability were two of the main antecedents for stress in the distance learning model. Teachers felt as though they could not assist the students academically or socially due to them working from home. Teachers also noted that it was difficult to develop relationships with the students during distance learning, which impacted their ability to connect and impact the students. The benefit of distance learning was that teachers became more comfortable with technology as the school year progressed. Female teachers felt more confident when using technology during distance learning than the male teachers.

Fiscal Implications

The findings of this study indicate that teachers did have certain factors that contributed to their stress more than other factors. Although the research indicated that participants in the mindfulness intervention did not have lower stress than participants in the non-intervention group, there were positive impacts of stress when using mindfulness practices. Positive impacts were noted in teacher perceptions of stress, ability to refocus, and remain calm. Over the eight-week period, differences were noted when participants engaged in mindfulness practices often. These benefits came at no cost to the researcher, participants, or school district. Based on these results and the discussed limitations, it is recommended that the program be offered to teachers once again. The district could offer these same practices to all their employees at no cost. If the school or district feels that these results justify more education with mindfulness, an expert could be brought in at minimal cost to do a training or inservice for volunteers who are interested.

Recommendations for Future Research

Based on the results of the research, the researcher would recommend repeating the study using a larger sample size. One of the biggest boundaries of the research was the limited number of participants throughout the process. Every survey tool that was used had a different number of participants complete it, including changing numbers week to week during the mindfulness intervention. The Pre-Survey had 34 participants. The Post-Survey had 19 participants. The Distance Learning Survey had 21 participants. The Panorama Survey had 13 teachers complete it both times. The mindfulness intervention had 3 participants to start, an inconsistent number fill out the surveys each week, and 2 participants completed the Post-Intervention survey. If possible, mandating participation would keep numbers more consistent.

Another recommendation would be to give the distance learning survey multiple times, rather than once. In this research, there was no comparison to see if stress changed throughout the year with distance learning. The survey was given one time and those results were recorded and used. The participants were doing a hybrid model, a virtual model, and all children return to the building for instruction model.

Conclusion

The 2020-2021 school year saw a variety of challenges such as multiple learning locations (hybrid, in person, virtual), the use of masks within schools, social distancing requirements, eliminating parents or volunteers from coming in, conducting all meetings virtually, and simply trying to keep your family healthy during the pandemic. As educators prepared for the return to instruction during the Covid-19 pandemic, there were many factors that could have caused stress. Having ways to cope with these stressors is

integral not only to enjoy your profession, but also to enjoy life outside of work. This study confirmed that stress occurs whether you are a first-year teacher or a 30-year veteran. This study highlights that implementing mindfulness practices can be one way to assist in decreasing stress, and educators can use mindfulness practices to assist in daily mental health. Remember, mindfulness is innate and is enhanced through practice (Albrecht et al., 2012).

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APPENDICIES

Appendix A

Pre and Post Survey

Demographics:

Gender? Years in education? Position? Highest educational level achieved? Type of classroom in which you work?

Teacher Stressors

(Adapted from Mapfumo, Chitsiko, & Chireshe. 2012)

Using the scale below, rate the the following in terms of how much stress they produce

(1= Not a source of stress, 2= very mild source of stress, 3=sometimes a source of stress, 4=fairly often a source of stress, 5=severe source of stress)

1. Dealing with difficult students
2. Finances
3. Worload
4. Shortage of supplies/materials
5. Supervision
6. Accomodations
7. Special Education
8. Relationship with other staff members
9. Recognition in public eye
10. Language barriers

Perceived Stress Scale

(Adapted from Cohen & Janicki-Deverts, 2012)

Using the scale below, rate the following in terms of frequency.

(1=Never, 2=Almost Never, 3=Sometimes, 4=Fairly Often, 5=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 dealt successfully with day-to-day problems and annoyances?
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
7. In the last month, how often have you felt that things were going your way?

8. In the last month, how often have you found that you could not cope with all the things that you had to do?
9. In the last month, how often have you been able to control irritations in your life?
10. In the last month, how often have you felt that you were on top of things?
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Self-Care Assessment

(Adapted from Pearlman, & Saakvitne, 1996)

Using the scale below, rate the following in terms of frequency.

5 = Frequently, 4 = Occasionally, 3 = Rarely, 2 = Never, and 1 = It never occurred to me.

Physical: How well are you caring for your body?

1. I am eating well-balanced meals and enough throughout each day.
2. I am drinking enough water.
3. I am active on a regular basis.
4. I take time off when I am sick.
5. I get enough sleep.

Mental: How well are you caring for your mind?

6. I allow time for stillness, such as disconnecting from the stimulation of my normal environment.
7. I take time to explore hobbies and interests.
8. I participate in a form of creative expression, such as making music for fun.

Emotional: How well are you caring for your emotional self?

9. I practice mindfulness and/or meditation.
10. My internal dialogue is mostly positive.
11. I am able to identify and seek out positive activities, people, and places.
12. Academic/professional: I set maintainable and realistic deadlines.
13. I consistently find ways to be productive and rarely procrastinate.
14. I am able to ask for help when needed.

Social:

15. I spend time with and communicate with friends, family, and loved ones.
16. I have an easily identifiable support system.

Spiritual:

17. I take time to consider what is important in my life.
18. I regularly connect with the things that feel spiritual to me, such as a place of worship or nature.
19. I participate in some form of reflective practice.

Pre and Post Survey Informed Consent

I am conducting a study to investigate factors that influence teacher stress levels within elementary school. In this study, you will be asked to answer questions regarding teacher stressors, your perceived stress levels, and your self-care.

I will also collect information to describe you such as your years in education, position, highest educational level achieved, and type of classroom in which you work.

You will be asked to participate in a survey that lasts approximately 15 to 20 minutes to complete. The survey is distributed and collected via Google Forms. Participants are asked to engage in select response and open-ended questions. There are minimal risks to participating in this study. The questions you are asked may be of a sensitive nature. The survey questions may make you feel uncomfortable, as some people do not like to volunteer information/feedback that could be perceived as personal or negative.

The potential benefits to you from this study are varied. Your answers will provide short and long-term assistance to the district. One possible benefit is the implementation of mindfulness activities.

You have been chosen to participate in this research due to your role as an employee of Central Dauphin School District.

Your privacy is important. I will handle all of the information collected in a confidential manner. I will report the results of the research in a way that does not identify you. I do plan to present the results of the study as a published study and potentially in journals or periodicals.

You do not have to be in this study. It is voluntary. If you do not want to participate, do not complete the survey. If you do agree, you can stop participating at any time. If you wish to withdraw, please notify me. Otherwise, by clicking continue to ae giving consent to participate in the surveys and questionnaire.

If you have any questions about this research please contact Mr. Daniel Iacavone at 717-439-1245 or iac7578@calu.edu, or California University of Pennsylvania Assistant Professor, Dr. Wolf at wolf@calu.edu

Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective nn/nn/nn and expires mm/mm/mm"? (the actual dates will be specified in the approval notice from the IRB)?

Appendix B

Weekly Mindfulness Activities

Demographics:

Gender? Years in education? Position? Highest educational level achieved? Type of classroom in which you work?

Week 1

(Adapted from Stewart-Weeks, 2016)

1. Yawn and stretch for 10 seconds every hour
2. Three hugs, three big breaths exercise
3. Storke your hands
4. Mindfully eat a raisin
5. Clench your fist and breathe into your fingers
6. STOP
7. Mondful Breathing for one minute
8. Loving-Kindness meditation
9. An Aspiration

Week 2

(Adapted from Mindful Awareness, 2015)

1. Mindful Hand Awareness Exercise
2. Mental Focus Exercise
3. Musical Stimuli Exercise
4. Undivided attention exercise
5. Full Sensory Awareness Exercise

Week 3

(Adapted from Burnett, 2020)

1. Keep mindfulness journals
2. Mindful Hand Awareness Exercise
6. Mental Focus Exercise
7. Musical Stimuli Exercise
8. Undivided attention exercise
9. Full Sensory Awareness Exercise

Week 4

(Adapted from Lifeworks, 2019)

1. Sit quietly with your eyes closed
2. Pause before you speak and act

3. Be fully present
4. Be here, right now
5. Practice mindful stretching
6. Whatever it is you are doing, just do that

Week 5

(Adapted from Lesh, 2020)

1. Grattitude journal
2. Refelction Time
3. Exercise
4. Proper Diet
5. Family Time
6. School Confidant
7. Pet Therapy
8. Self-Directed Stress Management Plan
9. Continual Pedagogocal Improvement
10. Celebrate Accomplishments

Week 6

(Adapted from Best & Fagell, 2018)

1. Put lost time to work for you
2. Transition intentionally
3. Make the most of mealtimes
4. Have an attitude of grattitude
5. Stretch beyond yoga
6. Tweet and tect mindfully
7. Utilize your senses
8. Find your inner child
9. Every classroom needs a little glitter
10. Don't forget to breathe

Week 7

Mindfulness Coach Application for phone

Week 8

Headspace Application for phone

Mindfulness Activity Informed Consent

I am conducting a study to investigate factors that influence teacher stress levels within elementary school. In this study, you will be asked to participate in weekly mindfulness activities. The mindfulness activities can range from one to two minutes daily, upwards to an hour daily. Participants can chose which weekly activities they want to participate in. This will take place over the course of 8 weeks. You will be asked to answer questions regarding teacher stressors, your perceived stress levels, and your self-care.

I will also collect information to describe you such as your gender, years in education, position, highest educational level achieved, and type of classroom in which you work.

You will be asked to view a weekly video with mindfulness activities. Participants are asked to try these activities throughout the week and fill out a weekly survey. Once the 8 weeks has concluded, participants are asked to complete a 15-20 minute survey. There are minimal risks to participating in this study. The questions you are asked may be of a sensitive nature. The survey questions may make you feel uncomfortable, as some people do not like to volunteer information/feedback that could be perceived as personal or negative.

The potential benefits to you from this study are varied. Your answers will provide short and long-term assistance to the district. One possible benefit is the implementation of mindfulness activities.

You have been chosen to participate in this research due to your role as an employee of Central Dauphin School District.

Your privacy is important. I will handle all of the information collected in a confidential manner. I will report the results of the research in a way that does not identify you. I do plan to present the results of the study as a published study and potentially in journals or periodicals.

You do not have to be in this study. It is voluntary. If you do not want to participate, do not complete the survey. If you do agree, you can stop participating at any time. If you wish to withdraw, please notify me. Otherwise, by clicking continue to ae giving consent to participate in the surveys and questionnaire.

If you have any questions about this research please contact Mr. Daniel Iacavone at 717-439-1245 or at iac7578@calu.edu, or California University of Pennsylvania Assistant Professor, Dr. Wolf at wolf@calu.edu

Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective nn/nn/nn and expires mm/mm/mm"? (the actual dates will be specified in the approval notice from the IRB)?

Appendix C

Weekly Journal

(adapted from Franklin, 2020)

1. On a scale of 1-5, rate your overall stress this past week:
   (1=very low, 2=low, 3=moderate, 4= high, 5=very high)
2. How many days have you practiced mindfulness exercises this week?
3. What have you learned about yourself from doing the mindfulness exercises over the past week?
4. How has practicing the mindfulness exercises affected you over the course of the week?
5. Has there been any noticeable change in you, your life, your body, your functioning, your choices, or relationships as a function of having practiced mindfulness over the past week?
6. What were the mindfulness activities that helped you the most?
7. What were the mindfulness activities that helped you the least?
8. What will you try differently next week in your practice of mindfulness?
9. Any additional comments:

Appendix D

Post Intervention Survey

1. Please describe your experiences participating in the daily mindfulness activities over the eight-week intervention period.
2. Do you feel the mindfulness activities helped improve your attitude towards work? Explain.
3. What were the most effective mindfulness activities? Explain.
4. What were the least effective mindfulness activities? Explain.
5. Did you find a difference in your stress level when doing the mindfulness activities compared to before you were given mindfulness exercises?
6. Will you continue doing mindfulness activities as a part of your life now that the study is completed?
7. Any additional comments:

Appendix E

Distance Learning Survey

(adapted from Panorama Education, 2020)

Using the scale below, rate the following in terms of the distance learning model

(1=Not at all confident, 2= Slightly confident, 3= Somewhat confident, 4= Quite confident, 5=Extremely confident)

1. How confident are you that you can provide effective instruction in the distance-learning model?
2. How confident are you that you can motivate your students to learn in distance-learning model?
3. How confident are you that you can help your students who need the most academic support in the distance-learning model?

Using the scale below, rate the following in terms of the distance learning model

(1=Not at all concerned, 2= Slightly concerned, 3= Somewhat concerned, 4= Quite concerned, 5= Extremely concerned)

1. How concerned are you about students' academic growth right now?
2. How concerned are you about students' social-emotional well-being right now?
3. How concerned are you about students' behavior right now?
4. How concerned are you about students' peer relationships right now?
5. How concerned are you about students' relationships with adults at school right now?

Open-Ended Response

1. What is working well with the distance-learning model that you would like to see continued?

2. What is challenging about the distance- learning model that you would like to see improved?
3. Is there anything else you would like to share about your needs during distance learning at this time?
4. Is there anything else you would like to share about students' during distance learning at this time?

Appendix F

IRB Approval

Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.

Dear Daniel,

Please consider this email as official notification that your proposal titled "An Investigation into Factors that Influence Teacher Stress Levels within Elementary School" (Proposal #19-075) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of approval is 09/08/20 and the expiration date is 09/07/21. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 09/07/21 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board