Pedagogical Practices Among Public School Health and Physical Education Teachers
Implementing Mindfulness-Based Stress Reduction to Adolescents: A Phenomenological Study

A DISSERTATION

Submitted to the Faculty of the School of Graduate Studies and Research of California
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Doctor of Health Science (DHSc) in Health Science and Exercise Leadership

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DISSERTATION APPROVAL

Health Science and Exercise Leadership

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我爱你

~Wo oi lei.~

"If You Are Working On Something That You Really Care About,
You Don't Have To Be Pushed. The Vision Pulls You."
~ Steve Jobs

Abstract

Mindfulness-based interventions have been shown to enhance well-being through a reduction in stress, anxiety, and depressive symptoms. They have also been shown to enhance working memory capacity, empathy and compassion among practitioners. The purpose of this study was to examine the mechanisms of infusing mindfulness-based interventions and mindfulness-based stress reduction practices into teacher pedagogy and gain insight into a teacher's lived experiences. Participants were 13 teachers (7 female, 6 male) ranging from 2-to-35 years of experience. Three serial semi-structured interviews along with an observation of a lesson between the second and third interviews were conducted between a three-month period. Findings from a qualitative analysis of interview transcripts and observational notes revealed eight themes present among mindful educators: (1) teachers select content mindfully basing decisions on class climate and make-up, (2) personal history and personal practice influence ability and perceived support, (3) implementation experience varies and directly affects perceived outcomes, (4) modeling behavior for students and other staff, (5) intrinsic and extrinsic motivation remain relevant factors to implementation, (6) challenges become motivators, (7) various levels of perceived organizational support, and (8) teachers developed higher levels of empathy from teaching mindfulness. In conclusion, teachers' experiences are a result of their ability to provide quality social and emotional instruction as a coping mechanism critical in their students' transition to adulthood.

Keywords: Mindfulness, mindfulness-based stress reduction, mindfulness-based interventions, teacher experiences, mindfulness phenomenology.

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Have you ever taken the opportunity to examine your surroundings? Much of what we pass by on a day-to-day basis is largely seen but not noticed; this explains the difficulty we have of retracing our path when we drive because we tend to focus on the road rather than street names. Think about the space you are in right now as you have this document in your hand or if it is lit up on your screen. Where are you in relation to the space itself? What sounds do you hear? Is the air warm or brisk? Are you breathing heavy? Noticing one or any of these elements constitutes a feeling of being mindful. There are many forms of mindfulness, and as this research examines the many forms of activity (or non-activity) these perspectives bring about, continue to be awake and aware of your body as you read. You have just taken the first steps to becoming a mindful individual.

Students are the primary stakeholders in any institution of learning. Much of the focus of the educational curriculum has predominantly centered on the perspectives of the learner. Helping adolescents become aware of one's vulnerabilities and developing protective factors against stress, depression, and anxiety are critical to promote not only student achievement, but also personal and social health. Royuela-Colomer and Calvete (2016) suggest that mindfulness may play a protective role in limiting the risk of depression in adolescents.

Whitesman and Mash (2016) argue that for students in a secular society to fully benefit from the positive effects of mindfulness, well-trained and competent teachers must be able to provide stress-based reduction programs. Bellamy, Crawford, Marshall, and Coulter (2005) examined high-reliability organizations (HROs) and recommended several tenets to create "fail-safe" schools such as teacher autonomy, lack of standardization, and decentralization in schools. However, standardization in mindfulness-based education has been challenging to research because teacher skill levels vary by age group, i.e. primary vs. secondary education, and teacher skills are essential to providing uniform instruction to validate training practices (Lamothe,

Rondeau, Malboeuf-Hurtubiseb, Duval, & Sultan, 2016). Programs that can be implemented with

all staff across the entire school are considered more effective than programs specifically

targeting at-risk students (Broderick & Metz, 2009; Raes, Griffith, Van der Gucht, & Williams,

2013). Since not all public and private institutions can afford to train staff in mindfulness-based

stress reduction (MBSR), researchers have experimented with delivering MBSR through

technology and compared it with face-to-face programming (Tunney, Cooney, Coyle, &

O'Reilly, 2017).

Teaching mindfulness in schools is both challenging and interesting to facilitators

because while adolescents portray vulnerability and a need for psychosocial assistance, these

initiatives must also be appealing to young people so that they remain in programs that provide

the support they need (Langer, Ulloa, Cangas, Rojas, & Krause, 2015). To add to that, educators

teaching mindfulness are not only required to have foundational pedagogical experience, but also

need a "range of competencies including working to and within the curriculum, relational skills,

guiding mindfulness practices, conveying the teaching themes through both the process and the

content of the teaching and holding the 'container' or group context of teaching." (Crane et al.,

2012, p. 80).

There is an exigency to produce teachers who can implement mindfulness-based

interventions (MBI) in the classrooms (Crane & Reid, 2016) as mindfulness education may be

one way in which schools may thwart depressive symptoms experienced by both at-risk and

regular education students brought on by stress (Collins, Best, Stritzke, & Page, 2016). However,

with the rush to get teachers trained, administrators should ensure that the training the teachers

receive assists them with becoming knowledgeable and responsible mindfulness practitioners.

According to Crane et al. (2012) teachers incorporating mindfulness into their lessons fell into

one of six stages: (1) incompetent, (2) beginner, (3) advanced beginner, (4) competent, (5)

proficient, or (6) advanced which were adapted from Dreyfus and Dreyfus' (1986) *Five-Stage Model of Adult Skill Acquisition*. The five-stage model has been used to demonstrate skill acquisition in a wide range of professions such as airplane pilots, chess masters, car drivers, and adult learners. Furthermore, it is also stated that often transitioning from one stage to the next takes considerable time and in some cases these lifelong changes could take a lifetime to master (Dreyfus & Dreyfus, 1986). The process of evaluating mindfulness-based practitioners becomes a challenge for three main reasons: (1) assessment criteria is not clearly stated, nor are there competencies agreed upon by professional organizations which makes this difficult for trainee-practitioners to view their assessment as a transparent process; (2) there are no national-level or state-level competencies which these mindfulness-based training organizations must adhere to, which also makes it difficult for employers and the general public to determine qualified mindfulness-based instructors from each other; and (3) mindfulness-based instruction at the research institutions have no formal methods to judge the adequacies of mindfulness-based interventions (Crane et al., 2012). Lau and Hue (2011) recommend that a teacher's manual should be supplemented with a training program designed to promote mindfulness skills in various curricula.

In most professions, particularly medicine, counseling, and education, there is a necessity to maintain certifications and/or licensures that ensure current, qualified practice, however, as a mindfulness instructor, a responsibility that crosses all three of those aforementioned professions, there is no competency-based assessment which may lead to further stress (Crane et al., 2012). Very little research has been conducted correlating job strain and psychological wellness in teachers (Borrelli, Benevene, Fiorilli, D'Amelio, & Pozzi, 2014). Since teachers already have a lot of expectations placed upon them, additional MBSR training should not add to those demands without proper and effective (the recommended) training. Crane, Kuyken,

Hastings, Rothwell and Williams (2010) provide a model for teacher training that begins with foundational mindfulness training; followed by basic teacher training, assisting teachers with the familiarity of an 8-week course paired with learning Buddhist psychology and mindfulness learning theories; and finally with advanced teacher training, encompassing several mindfulness-based methods, the experience of going on a 7-day retreat, and refining existing facilitations skills. Crane et al.'s (2010) model adds continuing professional development as part of an ongoing commitment to daily formal and informal practice.

Organizational change can be challenging and is a must if for ensuring proper organizational health (Hoşgörür, 2016). Educational change is often the result of complex relationships between politics, change management and/or leadership, curricular modifications, instructional methods, evaluation processes, classroom management, educational technology or other areas related to various educational initiatives (Towndrow, Silver & Albright, 2010). When change is initiated in an organization, perceptions may be either positive or negative (Armenakis, Harris & Moosholder, 1993). In other industry sectors such as private business or technology, often being the first to roll out new initiatives connotes innovation and can often be an advantage. In entrepreneurship, this is called a First Mover Advantage—these are the mechanisms that enable firms to gain positive results by being the first to implement a strategy (Lieberman & Montgomery, 1988). Implementing new initiatives without proper data and execution may do more harm than good because without supporting data and execution, programming may fail. Baglibel, Samancioglu, Ozmantar, and Hall (2014) agree that "In educational organizations, teachers are the most important factor determining the quality and effectiveness of education. Most change experts and politicians argue that teachers must be the centerpiece of changes to be initiated at a school." (p.56).

Numerous practitioners have asked how mindfulness practices taught in the traditional sense (i.e., meditation) can be professionally conveyed in public settings and brought to the masses (Kabat-Zinn, 2013; Segal, Williams, & Teasdale, 2013). Infusing mindfulness into professional development is one way that teachers may get the training they need, however, merely offering professional development is not enough to guarantee the sustainability of such programs when support needs to come from the leadership within schools (Taggart, 2015). To sustain mindfulness programs and increase mindfulness teaching effectiveness teachers must remain active participants that "keep the learning alive" (Crane et al., 2010, p. 81). In most school districts teachers are evaluated once per year, often by an administrator. One element of the evaluation process is self-reflection. Danielson (2007) states that distinguished teachers are often reflective in their practices. However, sometimes with little to no training in an area, it can cause a teacher to believe that he or she is incompetent.

Mindfulness-based practices are becoming more commonplace in education, especially with many school districts opting to include them as part of the character education curriculum or social and emotional learning (SEL) strategies (Flook, Goldberg, Pinger & Davidson, 2015; Schonert-Reichl et al., 2015). Mindfulness programming is now a required component in many schools and teachers may be the ones required to carry out the mission. With the numerous programs, curricula, and professional development interventions available, it is difficult to understand which strategies have worked best and why teachers choose to implement them in their own teaching practice. There are also varying experiences and approaches depending on the mindfulness practitioner and the setting (Bazarko, Cate, Azocar, & Kreitzer, 2013; Wahbeh, Lane, Goodrich, Miller, & Oken, 2014).

While several studies have reported the benefits of performing mindfulness on school-aged children in the context of an educational environment (Quach, Jastrowski Mano, &

Alexander, 2016; Shoshami, Steinmetz, & Kanat-Maymon, 2016; Sibinga, Webb, Ghazarian, &

Ellen, 2016; Toomey, & Anhalt, 2016; Viafora, Mathiesen, & Unsworth, 2015; Waters, Barsky,

Ridd, & Allen, 2015), there is little research that examines the experiences of teachers who

implement mindfulness-based interventions as part of their instruction. To understand the

experiences of the teachers who choose to implement mindfulness, educational and wellness

practitioners may gain a deeper understanding of what teachers perceive to be best practices that

may lead to the discovery of new knowledge in mindfulness-based education. The results will

elucidate what to expect when choosing to infuse mindfulness-based practices into lesson

planning. In summary, this body of research will be able to add to the field of applied wellness

education. Therefore, administrators or non-profit leaders need to fulfill the need to not only

provide safe environments, but also provide turnkey applicable mechanisms that enable highly

productive workforces. "Developing and testing new Approaches designed to help teachers

manage the stresses of teaching and improve the quality of classroom interactions that promote

student learning is critical to effectively supporting and maintaining the teaching workforce."

(Jennings et al., 2017, p.1011).

This study has better informed educational, wellness, and psychosocial practitioners on

implementing mindfulness-based interventions in public school settings. The problem

addressed in this study was the lack of clear information on teacher training and strategies used

to effectively teach MBSR. This problem was important to address because without proper

implementation of a mindfulness curriculum, all stakeholders cannot reap the benefits of the

content. Since 2005 a range of studies have been compiled on mindfulness adaptations for

teachers, but none of the studies examined the phenomenon that teachers experience when they

were planning or instructing mindfulness-based interventions. The purpose of this research was

to examine this phenomenon.

Methods

To examine the various strategies used to implement mindfulness-based interventions (MBIs) in a classroom environment a qualitative research design was used. Research generally falls into two categories: basic and applied. Researchers engage in basic research design because of motivation and thirst of knowledge or because of interest in a phenomenon and intellectual curiosity. By contrast, those engaged in applied research hope to change the way things are done by improving the practice in various fields (Merriam & Tisdell, 2016). Qualitative research is critical to the health sciences profession because it "explores the meaning of human experiences and creates the possibilities of change through raised awareness and purposeful action" (Taylor & Francis, 2013, p.3).

Often professions in health, education, social work, administration and other social sectors work with individuals to improve lives; thus, researchers are interested in elements which may be studied and enriched. A qualitative research design serves these disciplines well and provides researchers the insight and understanding to make a difference (Merriam & Tisdell, 2016). The information presented in the methods section includes: research design, the case for transcendental phenomenology, participants, procedures, research questions, data analysis, validity and reliability, data visualization, and limitations.

Research Design

The purpose of this study was to examine the mechanisms of infusing mindfulness-based interventions and MBSR practices into teachers' pedagogy and gain an insight into their lived experiences. This qualitative study took the form of a transcendental (descriptive) phenomenological study and identified major themes that influenced how teachers choose to implement mindfulness-based curriculum and identified the implementation styles that had the

greatest positive influences on teachers' pedagogy and experiences in the classroom. The design engaged teachers professionally in a process that allowed them to have a voice in the field of educational research. The study used multiple interviews to explore teacher impressions of mindfulness, accessibility to facilitation and barriers to practice, familiarity with curriculum, methods of infusion into current curricula, evaluation and support of mindfulness programming, frequencies of instruction, teacher feelings and experiences when conducting sessions, and levels of success and impact of MBIs in the classroom and gymnasiums. The interviews concluded with understanding the personal impressions that teachers had when implementing a mindfulness practice in their own lives.

While the study invited the voices of 13 educators from a rural/suburban school district which required regular mindfulness pedagogical practice, the qualitative research did "not seek to generalize to the whole population but to provide a precise (or valid) description of what people said or did in a particular research location" (Davidson & Tolich, 2003, p.34). Using a transcendental phenomenological framework by Moustaksas (1994), the researcher was able to analyze the various elements of data into an epoché, reduction, imagination variation, and synthesis.

The Case for Transcendental Phenomenology

Phenomenology is both a philosophy and a method. However, researchers tend to be more "concerned with first hand descriptions of a phenomenon than they are in resolving why participants experience life the way they do" (Eddles-Hirsch, 2015, p. 251). There are two main approaches to phenomenology: descriptive (transcendental also known as psychological; Moustakas, 1994) and interpretive (hermeneutical also known as existential; van Manen, 1990). According to Sloan and Bowe (2014) both transcendental and hermeneutical phenomenology

have similar roots, however, there are some critical differences. Hermeneutical tends to be more complex since time, space, and the intricacies of relationships play a part in how subjects view themselves and the world around them. Transcendental is objective while hermeneutic is subjective. Mindfulness strategies, content, methods of delivery, and frequency of delivery are objective measures, as a result, a transcendental phenomenological approach was ideal.

The differentiation between the phenomenological methods depended upon the research questions that were being asked. If the researcher had an interest in the experiential features of mindfulness, then the researcher would ask: "What are the main experiential features of being mindful?" and the research would take the form of a transcendental phenomenological study. However, if the researcher had an interest in how people who have undertaken a course in mindfulness made sense of being mindful, then the researcher would ask: "How do people who have completed a mindfulness course make sense of being mindful?" and the research would take the form of a hermeneutical phenomenological study (Smith, Flowers, & Larkin, 2012).

Transcendental phenomenology required the researcher to get to the essence of the phenomenon and with its epistemological principles, the understanding of why things are the way they are (Merriam & Tisdell, 2016). Furthermore, the researcher was the primary instrument for the analysis and participants were co-researchers because they were included as part of the meaning of the phenomenon (Moustaskas, 1994; Smith, Osborn, & Jarman, 1999).

Transcendental phenomenology requires that researchers bracket their own beliefs to prevent interference with the data collection and analysis, however, Martin Heidigger (1889-1976) the father of hermeneutic phenomenology, argued that it was impossible to separate one's experiences from the phenomenon being studied (Reiners, 2012). Moustakas (1994) refers to these separated personal experiences as epochés; "a Greek word meaning to refrain from judgement… In the epoché, the everyday understandings, judgements, and knowings are set

aside, and the phenomena are revisited" (p. 33). Therefore, this study took the transcendental

approach to phenomenology. Advocates of transcendental phenomenology (Colaizzi, 1978;

Moustakas, 1994) find that these methods provide step-by-step procedures which may be simpler

for beginning researchers. By combining mindfulness, phenomenology, and educational research

this enabled the researcher to gather relevant information to understand the lived experiences of

educators in a high school physical education and health program which required regular

mindfulness-based instruction.

Participants

In a review analyzing 11 phenomenological studies in both education and health sciences

conducted by Guetterman (2015), educational sample sizes ranged from eight to 31 with a mean

sample size of 15 participants while health sciences sample sizes ranged from eight to 52 with a

mean sample size of 25. Phenomenologists typically recommend that researchers interview

between five and 25 individuals who have first-hand experiences with the phenomenon

(Polkinghorne, 1989). Merriam and Tisdell (2016) also reviewed several studies and found that

methodology played a role with the number of participants. For example, narrative research

usually included one or two participants, case studies and ethnographies usually examined four

to five cases, phenomenology ranged from three to ten participants, and grounded theory from

20-to-30 participants. The study by Chein (1981) used a purposive sampling of health and

physical education teachers in one rural/suburban school district. The target sample involved in

this study was 13 health and physical education teachers ranging from two to 35 years of

teaching experience, and from 23 to 56 years old. Hence, the sampling method used in this study

was a critical case of teachers in the same discipline asked to volunteer to participate. These

teachers were course instructors for a variety of health and physical education courses beginning

in 9th grade: human sexuality, drug, alcohol, and nutrition education; 10th grade: driver's education and European team sports; 11th grade, junior health and individual sports and fitness; and 12th grade: senior health and adventure education. Health and physical education teachers were broken down into teams of five with some teachers teaching across multiple grade levels and one designated teacher working with the adapted physical education course. Of the 21 physical education teachers, only one was an ethnic minority (African-American), the other 20 were non-Hispanic Caucasians.

Health and physical education teachers had one 6-hour day of professional development (PD) during the summer of 2017, with bi-monthly 50-minute training sessions during an extra help ("tutorial block") planned throughout the school year by experienced trainers in both the health and physical education and the counseling departments. Various teachers have also taken it upon themselves to go to additional PD trainings either through online webinars, online graduate-level courses, or in-person seminars, and some have offered to teach mindfulness PD in the school district. It was suspected that teachers had differing levels of comfort while teaching mindfulness in classes based on their choices of activity or the frequency of delivery. Many teachers were also provided offline resources such as books but may not have had the chance to read or apply many of the techniques in the classrooms.

The school district itself employs over 430 teachers and for the 2017-2018 school year, only health and physical education teachers were recommended to infuse some form of mindfulness trainings into their courses. At the time this study was conducted, the school only recommended mindfulness as an informal practice and mindfulness sessions which could be infused as many or as few times as a teacher chose. The only stipulation was that some form of mindfulness programming was carried out throughout the semester. In the past year, there were only two professional learning community (PLC) meetings in which teachers were required to

fill out a form stating a mindfulness practice that they had used that demonstrated positive results.

The school district supported the implementation of mindfulness-based programming by allowing the formation of a mindfulness committee on campus. These committee meetings were held once per month during tutorial (extra help) blocks after school and were voluntary. The school district also provided PD funding to all disciplines and many teachers have taken advantage of those funds by going to seminars, signing up for online webinars, or attending graduate-level courses in social and emotional learning (SEL) with a focus on mindfulness-based teaching practices. The school ran other in-house PD courses on mindfulness in the classroom. These courses were held from 3:00 p.m. to 6:00 p.m. on Wednesdays once per month for three months during September 2017, November 2017, and January 2018, for a total of nine hours of PD; participation was voluntary.

Various literature stated that mindfulness may cause participants (both teachers and students in this case) to be uncomfortable because of its roots in Buddhist philosophy, thereby insinuating that mindfulness practices such as meditation constitute religious worship (Crane & Reid, 2016; Cullen, 2011; Kabat-Zinn, 2013). Activities such as meditation, mindful walking, and mindful eating are difficult when first practiced, but with more practice, educators become comfortable enough with those techniques in the classrooms on a regular basis.

Guetterman (2015) mentions that there are two concerns regarding the sampling in the review of studies performed over the last five years: extensiveness (the size of the sample), and relevance (appropriateness of the sample). Since this study incorporated the lived experiences of those involved in teaching mindfulness in a public high school health and/or physical education course, the current study met the requirements for being both extensive and relevant.

Procedures

Prior to beginning the study, the researcher attained permission from the school district superintendent to interview and observe other staff members for the purposes of graduate studies research (Appendix C1). Once the study was approved by the California University of Pennsylvania Institutional Review Board (Appendix C2), the first step involved soliciting participants for the study. The participants section of this methodology describes the sampling procedure (purposive) used for this study. The researcher's ethical Collaborative Institutional Training Initiative (CITI) was also obtained (Appendix C3).

The primary researcher had access to the health and physical education staff daily due to the closeness in the working environment, however, to conform to ethical standards, the researcher sent an introductory recruitment email (Appendix C4) requesting volunteers for this study. Participants had the opportunity to participate in interviews and observations. To make the research valid and reliable, it was necessary to obtain enough data from more than five ($n=5$) volunteers. Polkinghorne (1989) recommended this as the minimal number of persons needed for phenomenological research; similarly, Patton (2001) recommended a minimum sample size based on the phenomenon of the particular study. Initially 21 teachers were asked to participate in this study, however, only 13 teachers responded.

Those who agreed to take part in the study either replied via email or in person that they were interested and were set up for a preliminary interview in which an informed consent letter (Appendix C5) asking for consent to be interviewed and observed was reviewed and signed. The letter also explained the goals of the research, the intended purpose of the study, and the procedures for the process including the primary interview (Appendix C6), the secondary interview (Appendix C7), the observation (Appendix C8), and the third, final interview (Appendix C9). The letter also explained how the data would be accessible, but no identifying

data was available to anyone other than the members of California University of Pennsylvania involved in the study.

Interviews. Interviewing was conducted as a one-on-one, face-to-face process with each individual. Seidman (2006) stated that "Use of in-depth interviews alone, when done with skill, can avoid tensions that sometimes arise when a researcher uses multiple methods. That is especially the case when those methods may be based on different assumptions of what it means to understand the experience of others." (p. 6). Since one interview was not sufficient enough to attain the desired data, three serial interviews were conducted as qualitative researchers have stated that this number is considered in-depth and appropriate (Hennink, Kaiser & Marconi, 2017; May, 1991; Seidman, 2006). These interviews were conducted with each participant over the course of a three-month period. Reasons for interviewing participants multiple times included: (1) the need to attain saturation, Merriam and Tisdell (2016) state that "as you continue to interview you begin to realize that you are hearing the same things you've heard earlier: no new information is forthcoming, or some tidbit is relatively minor in comparison to the effort spent collecting the information" (p. 199), (2) the need to allow a participant to explore any additional feeling of thoughts from the preceding interviews, and (3) to allow participants to feel safe (May, 1991). Interviewing is an essential skill for researchers using phenomenological data collection, requiring the skills of: active listening, asking open-ended questions free from bias or judgment, building rapport, and gaining the trust of the interviewee (Pietkiewicz & Smith, 2012).

The following format as recommended by Seidman (2006) took place over the 3-month period:

Interview #1. Teachers were provided part I and part II of the interview to fill out by themselves which included contact information, age, and previous academic experience. Part III of interview #1 asked teachers about their impressions of mindfulness, facilitation barriers, levels

of support, familiarity with mindfulness programming, infusing of mindfulness into current

lessons, and knowledge of teacher evaluation in the context on MBI (see Appendix C6).

Interview #2. This interview was based on research questions specific to delivery, length,

and frequency, (how the mindfulness-based interventions were implemented and the delivery

methods) and how mindfulness-based practices and planning have influenced the daily practices

of teachers. The teachers were asked to reflect deeper about the classes, the planning process and

the current experiences with implementation (see Appendix C7).

Observations. The researcher observed one class in which mindfulness was implemented.

Observational data collection took the form of field notes (Merriam & Tisdell, 2016). The

researcher sat either at the back of the classroom if teachers were in a health course, or the back

of the gymnasium if the teacher was in a physical education course with a laptop and began

typing into the Observation Log/Field Note Guide (Appendix C8) recording only observed

teacher behavior (speech and actions).

Interview #3. The third interview combined both the first and second interview and the

observation. Seidman (2006) stated this third interview was to describe the individual essential

experience with the phenomenon. This final interview gave the researcher an opportunity to ask

questions that may have been left unanswered after examining the transcripts of the first and

second interviews and may have had questions about the observation. This final interview

permitted the researcher to attain saturation in data analysis (see Appendix C9). In-depth

interviews which may repeatedly ask similar questions are critical to the research process as

Seidman (2006) mentions: "the method of in-depth, phenomenological interviewing applied to a

sample of participants who all experience similar structural and social conditions give enormous

power to the stories of a relatively few participants." (p. 55).

There are three main types of interviews: highly structured, which take the form of an

oral survey; unstructured/informal, which involves open-ended questions that are more conversational and usually used when the researcher does not know enough about a phenomenon; and semi-structured, in which an interviewer uses a guided list of questions used with flexibly (Merriam & Tisdell, 2016). For the purpose of this research study, semi-structured interviews were utilized. Semi-structured interviews involved the use of open-ended questions which were pre-set by the interviewer to explore a topic; these types of interviews are also widely used in healthcare research (Jamshed, 2014). To gain valid knowledge from educators utilizing mindfulness in daily teaching practices, several interview questions and scripts (Appendix C6, C7, & C9) were prepared to better understand the phenomena that took place in the classrooms.

Interviews with teachers were guided by a set of prompts and encouraged a further exploration of the educators' roles, mindsets, prior knowledge, and views regarding pedagogical methods and experiences in the area of mindfulness practice. Interviews were recorded via audio recorder then transcribed verbatim later in the day. Smith and Osborn (2013) recommended creating an interview schedule to allow the researcher to think explicitly about outcomes:

> Although an investigator conducting a semi-structured interview is likely to see it as a co-determined interaction in its own right, it is still important when working in this way to produce an interview schedule in advance. Why? Producing a schedule beforehand forces us to think explicitly about what we think/hope the interview might cover. More specifically, it enables us to think of difficulties that might be encountered, for example, in terms of question wording or sensitive areas, and to give some thought to how these difficulties might be handled. (p.59)

Teachers were asked a series of questions permitting the researcher to gain an understanding of the current mindfulness practices and how these practices were infused into the

curriculum. Various teachers employed different techniques from a variety of curricula since the school district provides flexibility to use whatever methods educators deem acceptable. Mindfulness experiences however, were different for each teacher, and the goal of this study was to explore the experiences as mindfulness was taught and utilized from day-to-day throughout the time period.

For the first interviews, the researcher asked for dates and times in which both parties would be mutually available for a period of no more 30 minutes. These interviews were to gather informed consent from the participants, gain some biographical information on each teacher and ask the first set of questions.

The second interviews lasted between 20 to 30 minutes and featured teacher responses to mindfulness understanding, the resources that teachers used, and the strategies that were implemented during a typical mindfulness lesson. The second interview occurred between three to seven days after the first interview. Seidman (2006) states that the time period between interviews remains a critical factor so answers between interviews are not subjected to repetition. This also allows the researcher to examine the transcripts and notes from the previous interview and permit follow up.

While interviews may be a primary source of data for phenomenological research, observations were also a critical component in some qualitative studies. Merriam and Tisdell (2016), remark:

> Observations can be distinguished from interviews in two ways. First, observations take place in the setting where the phenomenon of interest naturally occurs rather than a location designated for the purpose of interviewing; second, observations data represent a firsthand encounter with the phenomenon of interest rather than a secondhand account of the world obtained in an interview. (p. 137).

The observations occurred between the second and third interviews. Observations were recorded by laptop in the form of field notes and then later coded. This was an opportunity for the researcher to gain insight into the actual teaching mindfulness teaching practice of the teachers. Field notes had to be corrected during post-observational settings to ensure a thorough review of all activity conducted on-site. Data here was matched with similarities in the interviews. Observational protocols are addressed in depth in the observations section of this study.

Prior to the third and final interview, the researcher must have had to interview the teacher twice and observed a class. The researcher brought only teacher-specific transcriptions, coded data, and field notes with him to the final interview and asked questions related to the first and second interviews and the observation to saturate the data. The third and final interview also lasted no longer than 30 minutes. During the final interview, the researcher asked the teachers about the mindfulness lesson and attempted to have teachers describe their experiences in detail. Additionally, the researcher asked questions about the evolution of the teacher from being a non-practitioner to becoming a mindfulness-based facilitator/instructor.

Teachers were notified that all the interviews and observational records were recorded and transcribed. The questions were open-ended with guided prompts and inquired about mindfulness beliefs and current practices as well as how mindfulness may have possibly shaped daily routines. All participants were provided an identification number and true identities were not known except by the researcher, dissertation chairperson, dissertation committee, statistical consultant, and two data analysis coders.

The participants reviewed their individual transcripts to ensure that the interview transcript was accurate. This process assisted the researcher in triangulation of the data along with the observational narratives (see observations section). A flowchart has been provided to

detail the procedures further (Fig. 1). After all data was collected, the researcher ran a

phenomenological analysis.

      Research Limitations. Since the researcher is currently employed in the same school

district as the potential participants, the researcher was also required to perform mindfulness

sessions with his own students. The purpose of this research was not so the researcher can exert

his own influences upon fellow colleagues, but it was to gain an understanding of the tools and

methods used and experiences lived. To address researcher bias, van Manen (2016) states that

there are methods which belong to other qualitative research methodologies like validation,

sampling selection criteria, members' checking, and empirical generalization, however since

these do not appear in phenomenological research—they should be seldom used unless

combining research design strategies. van Manen (2016) argues that the one tool

phenomenologists have at their disposal to quell bias, is the epoché (the bracketing of one's own

experiences), however, Gadamer (1975) argued that prejudices are necessary and thus

unavoidable provided the researcher is self-reflective. As a practitioner in transcendental

phenomenology, Moustakas (1994) is in line with Husserl's thinking when he states: "In

phenomenological studies the investigator abstains from making suppositions, focuses on a

specific topic freshly and naively, constructs a question or problem to guide the study, and

derives finding that will provide the basis for further research and reflection." (p.47).

      A qualitative research study posed many limitations given the lack of control the

researcher had with respect to the participants. When data came from interviews, the researcher

had to consider that participants own personal availability may not have met the availability of

the researcher in the amount of time set for the data collection of the study. The number of

planned interviews was not the final amount conducted due to participant scheduling conflicts,

non-responses, or other personal reasons such as maternity leaves. The interviews themselves

may have also been a limitation. Creswell (2014) cited that interview responses are based on the view of the interviewee, not all people are articulate or have a wide perspective on issues, and interviews are often held at a specific and planned site, rather than the natural field setting.

The school is predominantly white, suburban school district, with above average socio-economic development. The generalizability of this study was therefore limited to those same school districts with similar demographics. Since only health and physical education teachers were involved in the new school initiative, generalizing results to other disciplines such as social studies, mathematics, and the sciences was another limitation.

Despite that a purposeful and criterion-based sampling was used, due to the smaller target population (of 21 teachers) recruited as volunteers, potential bias in which teachers who were more concerned about the knowledge of mindfulness practices volunteered may have resulted. Given the mentioned limitations presented, the researcher included all presented limitations observed during the study in the final report of findings.

Formulating questions. To ensure that the questions asked extracted the required experiences, the researcher practiced the interviews with one teacher to ensure that the questions were not asked mechanically and to get an insight as to how one would respond. Maxwell (2013) recommended pilot-testing interview guides so that if problems occur, the questions could be revised prior to administering them to subjects.

Subjects were interviewed during off-school hours so that interviews would not impede the teaching process, planning time, or student contact time. Interview questions and scripts (Appendix C6, C7, & C9) were drafted by the researcher with committee approval and the researcher conducted each interview the same way with the order of questions being identical. If the researcher needed further clarification, then the researcher was able to probe the interviewees with additional questions.

Observations. In addition to interviews with prospective participants, the researcher also asked that the participants be observed by the researcher to reach a level of saturation. While in most cases teachers routinely use mindfulness practices with their classes, there were some teachers who specifically used mindfulness exercises knowing they would be observed by the researcher. These were teachers who may have had an alternate activity planned, but for research purposes were kind enough to demonstrate a mindfulness session for the purposes of this study. Saturation originates from grounded theory (Creswell, 2014). Once the researcher reaches a point where gathering data yields no new insights, then the researcher has reached saturation (Charmaz, 2006).

Using this protocol is not uncommon for phenomenology and it helps with the process of triangulation (Yüksel & Yıldırım, 2015). Triangulation is the process of collecting information from a wide range of participants and settings to reduce the impact of systematic bias as qualitative research is largely subjective (Maxwell, 2013). Observational skills are often used in qualitative research to address the issue of deception, as participants may not provide accurate data either from a researcher's subconscious priming or because of the irregular circumstance of the study (Creswell, 2013). Observations may be unstructured (no planning) or semi-structured (some prior planning with participants), thus permitting the researcher to take field-notes on the activities that are performed at the research site (Creswell, 2014).

Video or audio recording did not take place since the researcher would have had to attain parental consent from students in the room. However, it was imperative that field notes were taken as detailed as possible and were converted into a narrative format as soon as possible. Direct notetaking preserved the memory of the moments according to the researcher's perspective (Merriam & Tisdell, 2016). Taylor and Bogdan (1984) provided the following advice to assist beginning researchers: pay attention; shift from "wide angle" to "narrow angle" lens (p.

54), essentially blocking out ancillary moments and only focusing on the core of what is

observed, looking for key words that will match vocabulary that has come up or may come up in

other qualitative methods later; focusing on the beginning and the end of statements, and

mentally play back and visualize sounds and images during intermissions.

      Timeframe. Teachers volunteering to be interviewed also agreed to be observed and met

with the researcher during a mutually convenient time either before school, during a free lunch

period, or after school. The researcher framed the interview to the teachers and reiterated that

there was no judgment and administrators and school personnel were not be able to identify

those teachers who volunteered.

      Since teachers are normally busy during preparation (prep) times, interviews were

scheduled either before school, during lunch periods, or after school. Since the researcher is an

employee within the school district and not in a supervisory capacity, no conflict of interest

occurred. Teachers were briefed by the researcher and told that identifying information would

not be published and data would not be available to members of the administration until the final

results were recorded.

      Interviews and observations were conducted between April 2018 and June 2018. The

researcher had to bracket his own beliefs using an epoché. This was a crucial step towards

ensuring that the study was free from bias. The researcher put aside all preconceived notions of

his own experiences in the classroom with mindfulness instruction and focused on being open to

the experiences of the participants. The assumptions of the researcher "are not seen as biases to

be eliminated but rather as being necessary for making sense of the experiences of other

individuals" (Fade, 2004, p.648).

      On the date of the interview, the researcher confirmed via email that the interview was to

take place. The researcher met the teacher in his or her office providing an area that is familiar to

the teacher and allowed the teacher to be comfortable during the process. For a

phenomenological study to be effective the subjects must feel comfortable, Moustakas (1994)

suggested beginning the interview with casual conversation and easing into the interview. The

researcher started by thanking the teacher and reminded the teacher of the purpose of the study

and reminded the teacher that the information gathered would not be accessible by any entity

other than the researcher, dissertation chairperson, dissertation committee, statistical consultant,

and two data analysis coders. The researcher reminded the participant that the data and non-

identifying information would be published. Prior to asking any questions the researcher

reminded the teachers that the interviews would be recorded via audiotape and transcribed. None

of the interviews would be heard except by the primary researcher and, if necessary, the

dissertation chairperson, dissertation committee, statistical consultant, and two data analysis

coders.

The researcher used an electronic voice recorder (Olympus Digital Voice Recorder,

Model No. VN-8100PC) and placed it on a table. The researcher pressed the record button and

stated: "This interview is now being recorded." The researcher began by performing a semi-

structured interview asking the questions in the order on the interview questions and script

(Appendix C6, C7, & C9). If the teacher mentioned an idea or concept related to their

experiences, the researcher asked follow-up questions "off-script" and probed the teachers with

the intent to further understand experiences. Questions asked off-script were added to the final

interview questions and script (Appendix C6, C7, & C9) with notations. Once teachers

completed the interview, the researcher answered any other questions the teacher may have had

and thanked the teacher for participating and turned the recorder off. The interviewer then set up

another appointment with the teacher for a follow-up interview.

Various issues presented challenges to the study, among them included: a need for additional follow-up interviews, a need to rephrase certain questions that may have been ambiguous, limited mindfulness experiences either in the classroom or personal practices from the teacher, lack of detail in reflective processing, or inadequate allotment of interview time when an interview exceeded its designated time.

Transcription process. Merriam and Tisdell (2016) recommended that the researcher transcribe the interviews himself. This enables the researcher to (1) gain valuable experience listening to recorded audio, and (2) allows the researcher to gain familiarity with his own data. The process was conducted by placing a headset with the recording and simultaneously using *Dragon NaturallySpeaking* software which is user-friendly and provides the best economical value for the purpose of the research study. As the audio played back, the researcher recited the conversations word-for-word into the microphone, pausing when necessary to correct misspellings. Merriam and Tisdell (2016) call this process "parroting". Please see Figure 1 for a workflow detailing the overall design of the study. The researcher in this study was the sole data collector and transcriber. However, the researcher also sought out the assistance of two qualified coders in an additional effort to ensure that the data analysis demonstrated both validity and credibility.

Transcentendal Phenomenological Design	•Develop a deeper understanding of how MBI/MBSR is used in the classrom and explore lived experiences of the teachers.
Participant Selection	•Subjects were (*n*=13) health and physical education teachers with some training in MBSR by professional development or personal practice. •Participants were required to periodically infuse MBSR into classroom instruction.
Interview Question Structuring	•What questions would help explore the research question? •Phenomenological questioning strategies must be considered. •Experiential questions were designed and aligned.
Data Collection Primary Interview	•Sessions occured on the campus of the High School. •Sessions followed a semi-sturctured format. •Sessions lasted 20-30 minutes. •Sessions were audio recorded and transcribed.
Data Collection Second Interview	•Sessions lasted 20-30 minutes. •Sessions were audio recorded and transcribed.
Data Collection Observations	•Continued to gather data through observations of participant classes. •Observed one class for each participant in the study.
Data Collection Final Interview	•Conducted after the class observation. •Sessions lasted between 20-30 minutes. •Sessions were audio recorded and transcribed.
Phenomenological Analysis	•See figure 2 for a deeper explaination of phenomenological analysis involving epoche, phenomenological reduction, imaginative variation, and synthesis.

Figure 1: Flow Diagram Detailing the Overall Design of the Study

At this stage of the research, the implementation of mindfulness-based practices into pedagogy was defined as mindfulness-based interventions (MBIs).

Research Questions

The three research questions were further broken down into sub-questions (see Appendix C6, C7, & C9) as Bouma (2000) recommends that researchers answer the large questions by ensuring that no small questions are left unanswered.

The research was guided by the following questions:

Q1. What content do teachers use when teaching mindfulness?

Q2. What mindfulness methods of delivery, length and frequency of delivery do these teachers use?

Q3. How have mindfulness-based interventions (MBIs) impacted your teaching?

Data Analysis

Selecting the most effective and valid questions are challenging to phenomenological researchers as topics must be chosen that are interesting and have both a social meaning and a personal significance (Moustakas, 1994). Mindfulness targets all five of the characteristics Moustakas (1994) describes when he discusses characteristics for investigation: first, research in human science is similar to mindfulness practice—it is about the human experience and enabling one to fully appreciate the essence. Second, while mindfulness practice may be quantified with a number of instruments (Anthony, Bieling, Cox, Enns, & Swinson, 1998; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Cebolla et al., 2012; Chadwick, Hember, Mead, Lilley, & Dagnan, 2005; Taylor & Millear, 2016), mindfulness is still largely phenomenological in nature (Felder, Aten, Neudeck, Shiomi-Chen, & Robbins, 2014; Hemanth & Fisher, 2015) and thus would

benefit from qualitative research related to behavior or experience such as Dariotis et al.'s (2016)

study related to behavior modification in an urban classroom environment. Third, teachers are

often encouraged to have mindfulness practices in their own lives (Meiklejohn et al., 2012) and

human science research in phenomenology is engaged in the "total self" of the participant and is

interested in sustaining that personal involvement over time. Fourth, mindfulness is similar to

human science research in that is does not seek to predict or determine causal relationships but

rather just experiencing. And fifth, human science research questions are "illuminated through

careful, comprehensive descriptions, vivid and accurate renderings of the experience, rather than

measurements, ratings, or scores" (Moustakas, 1994, p.105). The data analysis was conducted

using Moustakas' (1994) approach which followed four phases: epoché, phenomenological

reduction, imagination variation, and essence.

      Epoché. Prior to beginning of the study, the researcher had to bracket his own personal

beliefs, prejudgments, and predispositions about the various mindfulness practices to create an

epoché to reduce potential conflict with the data reduction. "The process of [e]poché, of course,

requires unusual, sustained attention, concentration, and presence" (Moustakas, 1994, p. 88). The

epoché process is similar to the mindfulness mantras of letting go and being open-minded as

stated by Moustakas (1994), "another dimension of the [e]poché process that is of reflective-

meditation, letting the preconceptions and prejudgments enter consciousness and leave freely,

being just as receptive to them as I am to the unbiased looking and seeing" (p. 89). Once this

stage occurred, only then did the interviews commence.

      Phenomenological reduction. Verbal data needed to be transcribed word-for-word into a

database or spreadsheet document that was easily searchable. This approach required that

responses be electronically recorded and then followed a 7-step order encompassing two phases:

      Step 1: Horizontalization and listing all relevant expressions. Moustakas (1994) uses the

term horizontalize to describe horizons which are ideas, concepts, or expressions that keep showing up, "Horizons are unlimited. We can never exhaust completely our experience of things no matter how many times we reconsider them or view them. A new horizon arises each time that one recedes" (p. 95). Once interviews were transcribed, the primary researcher had to horizontalize the data and highlight significant statements, sentences, and/or quotes that were able to provide some insight on mindfulness pedagogy. Yüksel and Yıldırım (2015) suggested that all information should be treated with equal value. During this stage, the researcher removed any expressions that were irrelevant to the study.

Step 2: Reduction of experiences. The horizontal statements had to be split into meaningful units so that each statement only had one identifying theme. Creswell (2013) referred to meaning units as themes. The idea was to thin the data down so that it became more manageable.

Step 3: Thematic clustering. The next stage in the data analysis process involved clustering those statements according to themes to find meaning. This step is defined by Moustakas (1994) as the "core themes of the experience" (p.121). It is in this step that similar items were paired with other items for the sake of grouping like-elements together.

Step 4: Comparison of multiple data sources. This stage involved comparing the thematic clusters with field notes from observations or other data, such as journals, or logs (Yüksel & Yıldırım, 2015). Since this study used observations, then this stage was relevant to ensure that data sources were accurate and relevant. This step also assisted with the study's validity.

Step 5: Crafting individual textural descriptions. Once these themes were produced, the fifth step involved a summary or textural description of what participants experienced. At this stage, the researcher wrote a description of what was experienced by the participants in the study (Creswell, 2013).

Imagination variation. This phase can also be called a structural description and involves how participants experienced the phenomenon in terms of the conditions, situations, or context (Creswell, 2013). The purpose of this stage was to seek meaning through one's imagination (Moustakas, 1994).

Step 6: Crafting structural textural descriptions. During this step the researcher provided a structural description. This included context cues that were taken from the environment that influenced how participants may have experienced mindfulness in the classrooms, these were based off the atmosphere of the environment and they were interpreted by the researcher, such as the lighting, the type of room the students were in, how they were seated, the overall ambiance of the room, etc. According to Moustakas (1994), this involves examining all possible meanings, looking at different perspectives, and changing frames of references about the phenomenon. Essentially, this was a description of how the phenomenon occurred (Creswell, 2013). In the context of this study, the researcher provided organizational (i.e. relationships) and spatial (i.e. time, space, relation to self, etc.) descriptors in the form of a word cloud.

Step 7: Construction of composite structural descriptions. During this stage the researcher combined both the individual and the structural textural descriptions to formulate a composite description (Creswell, 2013).

Essence. This final phase of data analysis is also called the synthesis stage. During this stage, the descriptions were synthesized into an expression and distilled all the narratives of the experiences into a whole (Yüksel & Yıldırım, 2015). The essence of a phenomenon includes: epoché or bracketing, significant statements, meaning units, textural descriptions, and structural descriptions (Creswell, 2013).

While not a requirement of the phenomenological method, Yüksel and Yıldırım (2015) recommended that the last stage of the analytical process end with member checking to address

validity. Kvale (1996) believes that not all bracketing presuppositions during the epoché may

occur and by using member checking, "researchers can ask the participants about their interview

transcription to verify the researcher's understanding. In other words, the researcher can send

verbatim files to the participant to crosscheck their responses" (Yüksel & Yıldırım, 2015, p. 14).

Figure 2 provides a holistic view of the research using Moustakas' (1994) method.
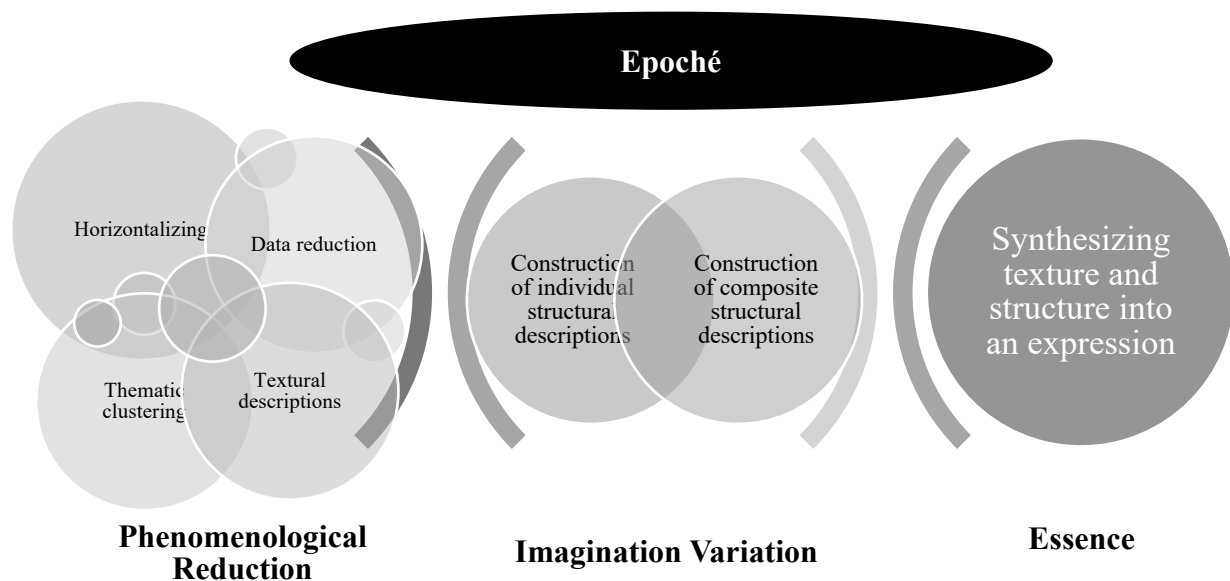
Figure 2: Process Stages of the Descriptive Phenomenological Analysis.

Validity and Reliability

Creswell and Poth (2018) recommend that for reliable data analysis to occur, the

researcher must "[include] others beyond the researcher and those involved in the research" (p.

262). Merriam and Tisdell (2016) state that "Strategies that a qualitative research can use to

ensure consistent and dependability or reliability are triangulation, peer examination,

investigators position, and the audit trail." (p. 252). Creswell and Poth (2018) explain that an

audit trail is the ability of the researcher to enable an external audit by a general consultant or

auditor that has no connection to the study. The general consultant or auditor would provide

feedback on whether the methods and the data support the conclusion of the study (Creswell & Poth, 2018).

This study utilized Creswell and Poth's (2018) four steps, "reliability and perspectives procedures" (p. 264-266). First, the researcher had to establish a common platform for coding and develop a preliminary code list. Next, the researcher included additional support with a codebook and shared the codebook among coders. For the third step, the researcher applied the codebook across additional transcripts, and compared coding across multiple researchers. The fourth step the researcher was involved to assess and report the intercoder agreement among researchers. Because of the ongoing nature and evolution of the data analysis, it was important to revise and finalize the codebook to inform further coding. Triangulation is the process of using multiple sources of data to allow for cross-checking. This study incorporated multiple interviews from various participants and an observation, thus leading to triangulation as the preferred method..

Data Visualization

Many researchers use computer programs to support qualitative analysis as it helps with reliability (Silverman, 2013). The researcher used MAXQDA Standard (https://www.maxqda.com/products/maxqda-standard). This is a comprehensive qualitative data analysis for researchers which permitted the detailed coding and synthesis of working with a range of various data sets. MAXQDA Standard has tools for advanced coding, retrieval, transcription and visualization, and was a simple program to learn with various tutorials available online. The software program was cost-effective, and allowed the researcher to import data from interviews, audio and visual files, and other sources. The software also allowed the researcher to compare notes with other members of the study (dissertation chairperson, coders, etc.) and

provided a systematic way of updating codes so the study continued to remain fluid. The software was also useful during various stages of the data analysis process allowing the researcher to create memos that were easily retrievable during audit trials or paraphrasing sentences into clusters.

An additional benefit to using MAXQDA Standard was the ability to automatically generate visualizations of data from collected sources. The data represented of this study took the form of word clouds that demonstrated which words and themes were more prevalent in the cleaned data.

Ethical Assurances

Ensuring that research is ethical is paramount to the validity of any study. In quantitative research, statistical methods are used to determine relationships between variables (Creswell, 2014) while qualitative research is intended to find meaning from experiences (Merriam & Tisdell, 2016). The California University of Pennsylvania Institutional Review Board (IRB) was provided a description of the study and certain requirements were to be followed when conducting this phenomenological study within a public school system. "The California University of Pennsylvania Institutional Review Board (IRB) is a standing committee, constituted according to federal regulations, that is responsible for ensuring that the rights and welfare of human research participants are protected." (Cal U IRB, 2018). The Cal U IRB adheres to the ethical principles of The Nuremberg Code, The Belmont Report: Ethical Principles and Guidelines for the Human Subjects of Research, and the Report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. This study was approved by the Cal U IRB and data collection did not commence until this study was sanctioned by the Cal U IRB.

Studies involving human research participants are required to attain informed consent, voluntary participation, and provide measures to ensure that participant data remains confidential and secure. Individual participant names were replaced with identification numbers. The true identity of participants was held in a data file which was stored online and required two-step verification through a six-digit code or a USB security key when linking new devices. The Dropbox folder was password protected and only accessible by the researcher and the dissertation chairperson. The online service mitigates data loss through hardware failure or theft by providing backups in the form of data redundancy.

The relationship of the researcher to Regional School District is professional in nature. The researcher retains full-time, tenured employment at the school district as a teacher and was granted approval of this study by the superintendent of the school district, the director of curriculum, and the department supervisor. The school district remains vested in this study for the purposes of improving its wellness offerings for both staff and students, helping staff and administration understand the experiences of pedagogical implementation of mindfulness, to be able to get an insight of what is being implemented from current efforts to limit distractions and increase mental well-being in the classrooms, and is hopeful that the school district may serve as a model to other school districts planning to implement MBSR to its student population.

Merriam and Tisdell (2016) recommend that an ethical advisor be assigned to the study; in this case, the researcher's dissertation chairperson served in an ethical advisory role. Maxwell (2013) states that researcher bias is the greatest threat to external validity. In this case, the researcher may have had internal bias that was more positive to mindfulness programming stemming from Asian ancestry and combined Christian/Buddhist religious upbringing. However, the use of bracketing (Moustakas, 1994) for transcendental phenomenology was instrumental as the researcher became aware of any biases and interpretations which may have presented

themselves during the interview and observational process and was able to self-reflect, acknowledge their existence, and bracket those feelings. During this point, the researcher became self-aware of pre-existing beliefs about mindfulness and became *mindful about mindfulness*.

Lincoln and Guba (1985) claim that trustworthiness must be applied to all research if it is to be valued by those seeking to examine its worth. Trustworthiness is the result of four elements involving: credibility, transferability, confirmability, and dependability.

Credibility. Both open-ended semi-structured interviews and observations were data-gathering methods used for this study. Once interviews were completed, the researcher transcribed the interview data and sent the Microsoft Word document back to the interviewee as a form of member checking. The observations were also documented and provided to the teachers prior to their final interviews. The initial two interviews, the observation, and the final interview were all various data points used to triangulate the unfolding phenomenon. To limit researcher bias, the researcher was able to document personal thoughts and experiences during observations as a form of self-reflection.

Transferability. In a qualitative study, this is synonymous with generalizability. In order to attain transferability, the researcher employed using Patton's (2001) technique of supplying the reader with rich descriptions of the setting and supply detail in the selection of participants. By providing rich descriptions, researchers permit the audience to make determinations of the transferability of the study (Creswell, 2007), similarly Lincoln and Guba (1985) state: "It is, in summary, not the naturalist's task to provide an index of transferability, it is his or her responsibility to provide the data base that makes transferability judgements possible on the part of potential appliers" (p. 316.)

Confirmability. The relationships inherent in qualitative research make confirmability challenging as researchers must be able to separate personal relationships and professional

relationships. "A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions" (Malterud, 2001, p. 483-484). Similar to Moustakas' (1994) bracketing or epoché technique, by using reflexivity the researcher was able to establish preconceived notions prior to beginning the study. Creswell (2007) suggests documenting past experiences, biases, and prejudices proactively. Malterud (2001) notes that "preconceptions are not the same as bias, unless the researcher fails to mention them" (p. 484). The dissertation chairperson was in receipt of the researcher's epoché one week before the study began.

The other element that allowed the researcher to establish confirmability was the use of an audit trail. Lincoln and Guba (1985) provide six steps through the development of an audit trail: (1) the inclusion of all raw data, transcripts, field notes, and other documents; (2) the reduction of data and products of analysis including summaries, memos, and other condensed notes; (3) the reconstruction of data and synthesis of products such as the struct of categories and themes, definitions, relationship, and their connections to existing literature and pre-existing concepts; (4) the inclusion of process notes, specifically procedural notes, strategies, design notes, and rationales; (5) any material related to intention and disposition including proposals, personal notes, reflexive notes and expectations; and (6) instrument development information. In the case of this study, the semi-structured interviews were designed by the researcher and adjusted by the dissertation chair and committee members; the observational forms were modified from Danielson's (2008) *Framework for Effective Teaching*.

Dependability. As a suggestion from a data analysis consultant, the researcher was able to attain the assistance of two external auditors to ensure that data was interpreted correctly. One external auditor was a strength and conditioning coach and current adjunct college professor of

exercise science who possessed a bachelor's degree in physical education and health and a

master's degree in exercise physiology. The other external auditor was a middle school health

and physical education teacher and adjunct college professor in health and nutrition with a

bachelor's degree in physical education and health, a master's degree in positive psychology, and

a doctorate in education in organizational change and leadership.

   In the case of this study, the external auditors also assisted as external coders and were

provided copies of the data. Within a week these auditors were able to assist in the process of

identifying new codes, suggested one additional theme, and were able to provide suggestions on

various codes being classified as subcodes.

   In summary, the process to establish trustworthiness in this study was lengthy and

meticulously monitored. The result was to conduct a qualitative phenomenological study that

would enlighten the mindset of pedagogues to be exposed to mindfulness research in the context

of K-12 schooling. Through a phenomenological design, it was the hope that the researcher was

able to capture the essential lived experiences of high school teachers infusing mindfulness

content and practices into the curriculum.

Results

The purpose of this qualitative study was to examine the mechanisms of infusing mindfulness-based interventions and MSBR practices into teacher's pedagogy and gain insight into their lived experiences. This study took place at a large regional suburban high school in Central New Jersey. A transcendental phenomenological design was used and parameters for inclusion in the study included being a health and/or physical education teacher at the high school level (grade 9-12) and the implementation of mindfulness-based initiatives.

Demographic Information

Twenty-one teachers were asked to participate in this study, however, only 13 teachers responded to requests to be interviewed and observed. Of the 21 teachers in the department, several of them coached during the spring season, and there were three long-term substitute teachers in for teachers on maternity leave. Conducting interviews throughout the school day proved to be a challenge and on several instances teachers who had made appointments needed to reschedule either because of end-of-year meetings involving annual teacher performance evaluations, standardized testing, and in one instance a fire drill during the teacher's preparation period.

Seven participants were female, and six participants were male. Teaching experience ranged from two years to 35 years with many teachers assigned to teach multiple grades during their tenure. Three of the 13 teachers had teaching experience at other public or private schools prior to becoming a teacher in the school district, with one teacher identifying teaching as a second career. Ten of the 13 teachers chose to major in health and physical education for undergraduate degrees. Nine of the 13 teachers held graduate degrees (two in fitness and wellness, two in educational leadership, three in health and physical education, and one in social

and emotional learning). One teacher held two master's degrees (health and physical education, and educational leadership) and one teacher held a post-master's specialist education degree in educational administration. Only one teacher had tertiary educational training in a field similar to mindfulness: social and emotional learning (teacher #2) while two other teachers mentioned mindfulness as a part of their graduate educational endeavors (teacher #1 and #12).

Three serial interviews were conducted among each participants and each interviewee consented to an observation of a lesson was conducted between the second and the third interviews. Data were collected using a semi-structured interview guide and all interviews were recorded via digital recorder and transcribed within three days of an interview (See Table 1).

Table 1

Demographics of Study Participants

Teacher	Age	Number Years Teaching Exp. By Grade Level					Total Years Teaching Exp.	Education		
		9th	10th	11th	12th	Other		BA/BS	MA/MS	Ed.S.
#1	50	27	5	25	-	-	27	HPE	FT/WL	
#2	52	-	15	10	10	-	25	HPE	SEL	
#3	58	9	13	-	-	22	35	HPE		
#4	24	2	-	-	-	-	2	HPE		
#5	27	-	4	1	1	-	4	HPE	EDLD	
#6	28	3	-	-	-	2	5	HPE	HPE	
#7	26	3	-	3	-	-	3	HPE	HPE	
#8	36	-	1	-	-	12	13	FT/WL		
#9	43	9	-	11	11	-	20	HPE	EDLD	
#10	31	7	7	2	2	-	9	HPE	FT/WL	EDLD
#11	26	-	3	3	3	-	3	FT/WL		
#12	42	3	-	7	-	-	10	BUS	HPE EDLD	
#13	47	4	-	20	20	-	24	HPE	HPE	

Note. BUS = Business. FT/WL = Fitness/Wellness. HPE = Health & PE.
EDLD = Educational Leadership. SEL = Social/Emotional Learning.

Interviews #1 and #3 had three separate research questions. A decision was made to split those interviews into three separate documents during transcription which allowed for more accurate coding and analyzing. Interview #2 only had two research questions and thus those 13 interviews were split into two files. Teacher identification numbers were used and were assigned in the order they were interviewed, therefore teacher #1 was the first teacher interviewed and teacher #13 was the final teacher interviewed. After interviews were transcribed, they were sent to each respective teacher within three days as an attachment through email as a form of member

checking to ensure that accurate information was reflected should the teacher have any information that needed clarification.

Analysis of Interviews

Thirteen teachers were asked to share their experiences as they navigated the beginning stages of implementing mindfulness-based interventions in the classroom. While many of them had their own personal practices and reasons for showcasing it in their classrooms, just as many teachers were hesitant for varying reasons and during interviews asked to be reminded about the confidentiality of the interview data. Many of the teachers were reluctant to engage in a lengthy process at first, but during regular conversations after interviews many of them stated that the interviews were a source of reflection for them and in many cases the interviews were beneficial towards their professional development.

The collection of data was conducted from May 3rd 2018 to June 17th 2018. Interviews ranged from nine minutes to just over 33 minutes. The average time for the first interview was 18 minutes, the average time for the second interview was 21 minutes, and the average time for the third interview was 22 minutes. The overall average amount of time across all interviews was 20 minutes. The findings of the research yielded a total of 13 hours, 4 minutes and 28 seconds worth of interview data and over six hours of observational data. This process resulted in 117 unique documents and 4,288 coded statements that when compiled, amounted to just over 400 pages of quotes and memos.

The coded segments produced 106 individual codes detailed in *Table 2* along with the frequency of occurrences throughout all 117 documents. All of the 106 codes were then grouped under a thematic family; for instance, attention span, lack of acceptance/support, curricular issues, and immaturity, etc. were grouped under "challenges"; articles, books, literature, bodily

senses, videos, etc. were groups under "content and practices". There was a total of eight

thematic families which included: challenges, content and practices, delivery, motivators of

mindfulness, frequency and duration of programs/initiatives, length/time of session, feelings, and

training and support. Several statements were assigned two or more codes.

Table 2

Code Book

Code System	Memo	*N*
Challenges	Difficulties of implementing and teaching mindfulness in the classrooms.	9
Acceptance/Support	Creating a sense of importance and helping students and colleagues realize the importance of a certain activity.	102
Attention Span	Students demonstrate difficulty in maintaining time on-task because of fluctuations in the amount of focus or concentration for a particular activity (or set of activities).	77
Curriculum	Staff member feels that a mindfulness curriculum would need to be established prior to engaging students with more mindfulness activity or that mindfulness would need to be threaded into the already existing curriculum.	57
Immaturity/Behavioral Issues	Staff member feels that students do not take the mindfulness sessions seriously because of a lack of maturity.	49
Insufficient Time	Lack of time for staff to implement mindfulness-based interventions.	62
Lack of Feedback	Teacher cites that feedback is minimal with from students, parents, administrators, or other teachers.	14
Lack of Knowledge	Staff member feels that s/he is not considered an expert or authority on mindfulness and thereby cannot contribute to the success of a program.	33
Logistical Issues	Staff member feels that there is a lack of space, or the environment in which mindfulness is being implemented is not conducive to the experience, i.e., room too noisy. Teacher may speak to the number of students (class load) of each section or conflicts with the school schedule (testing).	59
Lack Support/Resources	Staff member feels a lack of support.	19

Pacing	Ensuring that enough material covers the lesson or remaining lessons or sticking to a sequence that allows the teacher to implement the important facets of mindfulness-based interventions.	19
Personal Practice	Staff member acknowledges that personal practice is not a priority either for him/herself or the students.	26
Pragmatism	Teacher expresses being pragmatic with expectations and being realistic about goals, methods, or outcomes.	50
Progression	The need to begin an activity from a basic understanding and gradually increasing difficulty or duration.	30
Quality of Sessions/Content	Teacher mentions that the quality of sessions/content is a problem and may pose other issues such as consistency or validity in the experience.	25
Time of Day	Teacher mentions that the time of day is a factor in how his or her students accept or resist mindfulness practices.	3
Unmotivated	Staff member is not motivated to implement mindfulness-based practices or mentions that students have difficulty with motivation.	17
Content & Practices	This is the material and resources that teachers use while teaching mindfulness.	20
Negative/Minus	Negative aspects.	80
Positive/Plus	Positive Aspects.	106
Applications	Any online web-based resources that are used to teach mindfulness.	30
Articles/Books/Literature	Written articles or segments of books that are used as content.	14
Bodily Senses	Touch, Smell, Sights, Sounds, Taste	19
Body Scan	Body scan mindfulness technique used to help participants become aware of bodily sensations.	28
Mindful Eating	Consuming small samples of food while paying attention to the taste and other sensations as they arise, e.g. melting chocolate on the tongue, eating a raisin as slowly as possible, etc.	7
Mindful Listening/Music	Teacher uses music to engage students with sound and melodies.	26
Natural Sounds/Nature	Birds, scenery (waterfall, oceans, etc.) and other natural sounds.	4
Classical	Traditional classical music with strings orchestra.	2
Zen/New Age	Music uses gongs, bowls, or synthesizers to create different sensations.	9

Manipulatives	Using tactile, hand-held objects to help bring attention to kinesthetic senses, e.g. Play-Doh®, spinners, stress balls, etc.	9
Meditation	Mindfulness meditations	39
Self-Directed Meditation	A meditation in student/practitioner self-initiated a mediation without audio or visual cues.	11
Guided-Meditations	A meditation in which an external source is guiding the student/practitioner through the mediation.	57
Mindful Breathing	Practitioner takes deep breaths and learns to control one's breathing. Also includes diaphragmatic breathing exercises whereby practitioner switches from chest breathing exercises to using stomach (diaphragm) to breath.	46
Mindful Coloring	Using black and white outlined images that allow participants to color into empty spaces, e.g. images of mandalas, images of positive sayings, etc.	28
Mindful Walking	Taking a walk while opening one's sense to the surrounding environment, e.g. keeping a lookout for colors, sounds, smells, and other sensations.	27
Progressive Relaxation	Technique in which practitioner tenses one part of his/her body and immediately relaxes that muscle.	14
Puzzles	Word searches, sudoku, crosswords, or other brain teasers.	16
Reading		3
Reflective Practices	Generalized reflective practice. May or may not require students to write or record thoughts/feelings/outcomes.	44
Discussion	Students engage in discussion about mindfulness and topics that could bring attention to awareness, kindness, non-judgment, etc.	22
Doodling	Allowing a mindfulness practitioner to draw shape, pictures, words without judgement.	5
Journals	Used to help teachers and students reflect by writing into a log either online or on paper.	62
Positive-Talk/Gratitude	Having students/teachers cite current examples where they can be thankful of appreciative.	4
Variety of Content	Teacher mentions using a variety of content to supplement instruction.	66
Video/Animation	Using YouTube clips or DVDs to engage students both visually and auditorily.	45
Visualization/Script	Using a script to help practitioners visualize being in some relaxing environment.	55

Websites/Online Materials	Any online materials or resources that are used to teach or engage students in mindfulness.	22
Yoga	Activity whereby students and teachers move their bodies into a series of poses designed to work various muscles or stretch certain parts of the body.	35
Delivery	How mindfulness-based interventions are delivered.	21
Combination: Direct/Indirect	Teachers use pre-established plans or curriculum and supplement with other materials or strategies.	8
Direct-Approach	Using pre-established programs or curricula to assist with mindfulness engagement.	15
Indirect-Approach	Using self-created or personal practices/experiences to engage students in mindfulness-based interventions.	56
Scaffolding	Teacher attempts to deliver mindfulness in a progression that scaffolds off pre-existing knowledge, or from prior practices in a step-by-step fashion.	43
Audio-guided	Uses sound to help implement mindfulness-based interventions, this included: music, guided-meditations through CDs/online mp3's, etc.	58
Self-guided	Each individual student is provided a choice in what s/he chooses as a mindful activity.	56
Student-guided	Students lead the mindfulness-based content.	59
Teacher-guided	Teachers lead the mindfulness-based content.	39
Technology-guided	Technology is used to implement mindfulness-based interventions such as: web-based 2.0 applications, smartphone applications, etc.	21
Driver of Mindfulness		12
Administrative	Staff member mentions the urge for mindfulness-based initiatives because of either: supervisory or administrative influence.	26
Character Development	Teacher cites the development of character or the need to provide social and emotional learning experiences to students.	14
Classroom Chemistry/Makeup	Implies that classroom make-up of students has something to do with the chemistry and the acceptance of mindfulness-based interventions.	78
Curiosity	Staff member cites inquisition and wants to know more about the subject. Because of this curiosity, the staff member has a reason to learn more about mindfulness-based interventions. Staff member may also try new things and express "trial and error" in his/her language.	53

	Staff member may also cite wanting students to be curious about the content.	
Develop Focus and/or Awareness	Teacher cites that students need to develop focus and/or awareness.	142
Develop Resilience/Coping Skills	Teacher expresses a need to help students develop resilience and coping skills.	103
Differentiation/Needs of Individual Student	Teacher determines what is best providing a variety of instructional methods and resources for students and attempts to individualize instruction based on student needs.	84
Existing/Similar Curriculum	Teacher states that pre-existing curriculum is a focus and helps to implement further understandings/strategies. Cites a need to connect with other materials that may be a part of the unit.	24
Exposure and/or Introduction	Exposure to new material/strategies	31
Other Teachers/Mindfulness Practitioners	Teacher cites that other teachers have either directly or indirectly influenced their ability to infuse mindfulness into their lessons.	34
Performance/Athletics	Teacher cites that student performance was a factor or may mention performance in athletics.	20
Personal Experience	Staff member mentions a personal experience as a driver, e.g. family, personal stress, moral obligation, etc.	70
Preparation for Future/Application to Present	Teacher expresses a desire to help students deal with future issues as they get older and experience greater stress/anxiety/depression.	82
Resources Available- Material and/or Space	The availability of resources that are accessible to teachers either online or through the school district that could drive the mindfulness initiatives.	48
Routine/Expectations/ Culture	Teacher cites that mindfulness is part of a routine that expresses an expectation of uniformity and/or culture. Routines may already be in place from previous semester/years and/or previous schooling. Students and/or teachers may have prior knowledge.	102
School Mission	Staff member cites the mission of the school district is: "A Sound Mind in a Sound Body". Student wellness is a part of the school district's mission.	32

Seeing Growth/Benefits in Students	Staff members mention seeing growth in student populations either through personal development or improved social behavior.	99
Student Enjoyment	Staff member mentions that students enjoy the activities or experiences ask for further resources, more activity, or mention personal satisfaction.	59
Technology Dependence	Teacher mentions that students connection to technology is a driver of mindfulness-based interventions.	15
Other	Other drivers of mindfulness that are not previously explained.	37
Frequency & Duration of Programs/Initiatives	Total time of program in terms of days, weeks, months, etc.	15
Regular 1x/week	Mindfulness is implemented regularly once per week.	12
Regular 2x/week	Mindfulness is implemented regularly twice per week.	7
Regular Every Class	Mindfulness is implemented regularly every class period.	15
Sporadic	Mindfulness is used sporadically throughout the year, there is no set time or routine to using it.	20
Unit/Chunk	Mindfulness is only incorporated in a unit or for a set-period of time.	34
Length/Time of Session	The total time per session of mindfulness-based intervention	32
Under 3 Minutes	Teacher mentions the time of session or a particular initiative is under three minutes.	15
Between 3-5 Minutes	Teacher mentions the time of session or a particular initiative is between six and ten minutes.	18
Between 6-10 minutes	Teacher mentions the time of session or a particular initiative is between six and ten minutes.	40
Between 11-15 minutes	Teacher mentions the time of session or an initiative is between 11 and 15 minutes.	33
Greater than 15 minutes	Teacher mentions the time of session or an initiative is greater than 15 minutes.	49
Variable Length of Session	Teacher states that session length varies, or individual initiatives may change.	8
Feelings	Affect of individuals associated with mindfulness teaching and/or learning.	7
Apprehensive	A feeling of apprehension and caution from the interviewee.	15
Awareness & Insight	Teacher makes an insightful comment that speaks to the awareness of what s/her believes and illustrates a deeper understanding.	201

Calmness	A feeling of calmness and caution from the interviewee.	48
Conflict	Teacher experiences conflict in emotions.	23
Disappointment/Exhaustion	A feeling of exhaustion from the interviewee.	7
Empathy	A feeling of empathy from the interviewee.	99
Excitement	A feeling of excitement from the interviewee.	44
Frustration	A feeling of frustration from the interviewee.	18
Hopeful	A feeling of hopefulness from the interviewee.	55
Gratitude	Educator states that s/he appreciates and/or is thankful for an experience or interaction. May also signify that students are gratuitous.	15
Happiness	A feeling of happiness from the interviewee.	13
Unknown	Teacher is either unaware of material or does not understand/know concept/content.	71
Training/Support	Teacher cites an element of support.	16
Administrative Training	Administrators are perceived in support when they train teachers.	1
Books & Literature	Learning about mindfulness either through journal articles, books, or other written (this includes online) resources.	24
Colleagues & Friends	Learning about mindfulness from friends or colleagues.	51
College Courses	Higher-level for-credit courses developed for the purposes of social-emotional learning, classroom environment, curriculum & instruction, or health science courses either applied for non-matriculated or matriculated adult learners.	25
Curriculum Writing	Formal session in which teacher is required to write or develop curriculum for the purposes of putting together new materials and/or instructional methods.	15
Online	Online training either through a graduate course or webinar.	27
No Formal Training	Teacher was required to teach mindfulness without prior training.	16
Professional Community	Being a part of a professional community in which the learner has an opportunity to engage in mindfulness-based strategies, e.g. Mindfulness Committee.	22
Professional Development	Professional development offered through the school district.	30
Code System Total Codes		4288

Using the MaxQDA software program, the researcher was able to analyze the data according to research questions and the software was able to generate a word cloud for the most frequently used words. The interview responses across all 13 teachers were distilled down to the more frequent 100 words and Figures 3, 4, and 5 demonstrate that the most frequently used words were: "mindfulness", "students", and "think". The word clouds contained some other similarities such as "question", "need", "different", "activity/activities", and "practice". Research Question 1 asked specifically what content teachers used when teaching mindfulness. While the word cloud does not specifically show words related to content, the word cloud illustrates that teachers used a variety of strategies and instead had more to say about programming than about specific methods. "Breathing" and "meditation" were the two most commonly stated words during the interview process.
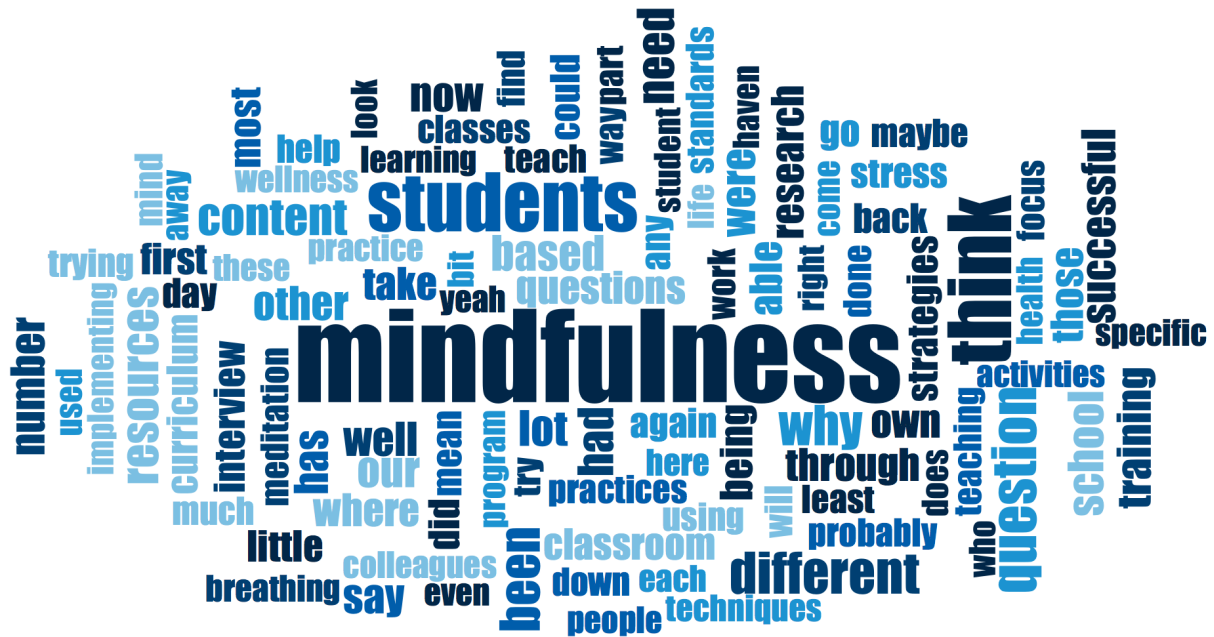
Figure 3: Word Cloud Research Question #1

Figure 4 illustrates research questions 2 when asked: What mindfulness methods of delivery, length and frequency of delivery do these teachers use? Teachers were less likely to mention specific times and durations and instead had a variety of different "approaches" deciding which "methods" worked best according to their classes. The words "guided", "program", "session" and "curriculum" all appear in this image which illustrates that teachers used these terms most frequently when referring to the range of programming they incorporated.
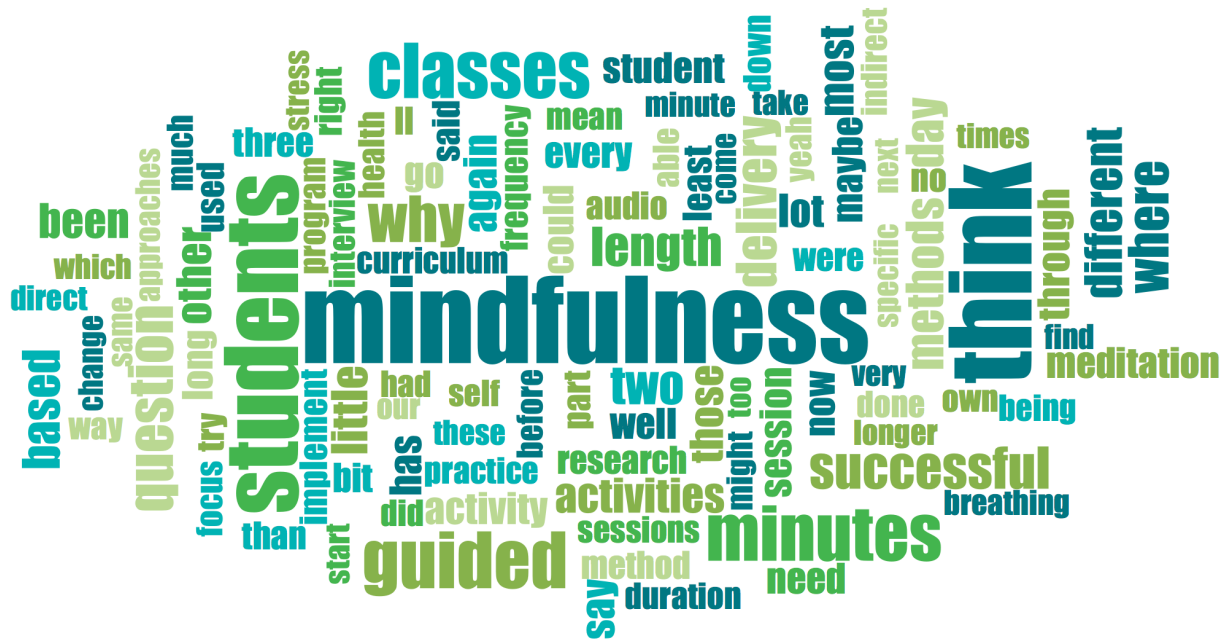
Figure 4: Word Cloud Research Question #2

Figure 5 illustrates the most frequently stated words for the third research question: how have mindfulness-based interventions (MBIs) impacted your teaching? Words such as "trying", "better", "enjoy", and "life" appear in the most frequently stated words.
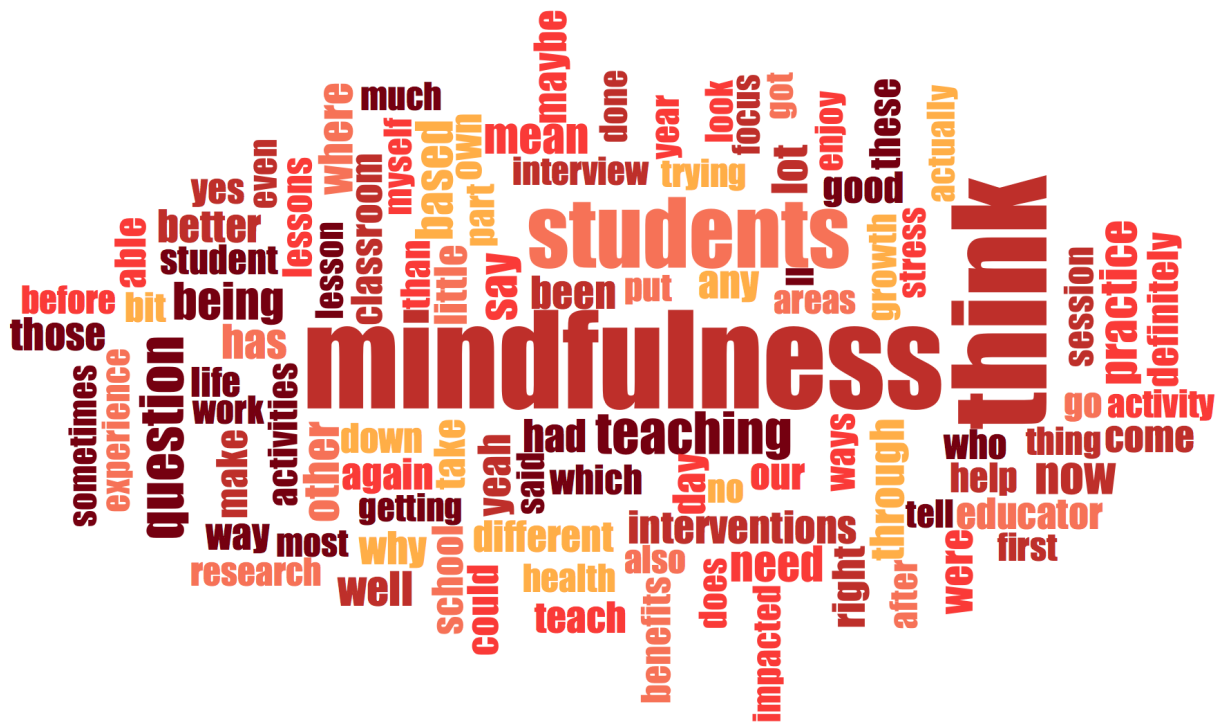
Figure 5:Word Cloud Research Question #3

Using observational data from all 13 in-class observations, the researcher was able to use MaxQDA to pull the top 100 most frequently used words during mindfulness practice sessions. These words were a direct result of either teachers using them in conversations with students or as a result of the researcher describing the scene during these sessions. The most frequently used words were "students", "right", and "room".

Figure 6: Word Cloud Observations

The MaxQDA qualitative analysis allowed the researcher to count significant statements and highlight them according to one of the 106 codes. These codes were grouped into one of the eight thematic families and each research question was able to determine which thematic families were mentioned more during the interview process. The research questions are listed below for convenience.

Q1. What content do teachers use when teaching mindfulness?

Q2. What mindfulness methods of delivery, length and frequency of delivery do these teachers use?

Q3. How have mindfulness-based interventions (MBIs) impacted your teaching?

Figure 7 illustrates a matrix for a research question analysis showing that motivators of mindfulness appeared to be the most common outcome from research questions 1 and 3, while research question 2 was able to pull more information from teachers regarding their content and practices, frequency and duration of program, and length/time of session than the other two

research questions. Each matrix is represented with blotter marks; larger blots indicated greater frequencies of responses.

Code System	Research Question #1	Research Question #2	Research Question #3	SUM
Motivators of Mindfulness	●	●	●	663
Challenges	●	●	●	389
Content & Practices	●	●	●	549
Delivery	·	●	·	202
Frequency & Duration of Program	·	●	·	70
Length/Time of Session	·	●	·	114
Feelings	●	●	●	327
Training/Support	●	·	●	153
∑ SUM	674	1,023	770	2,467
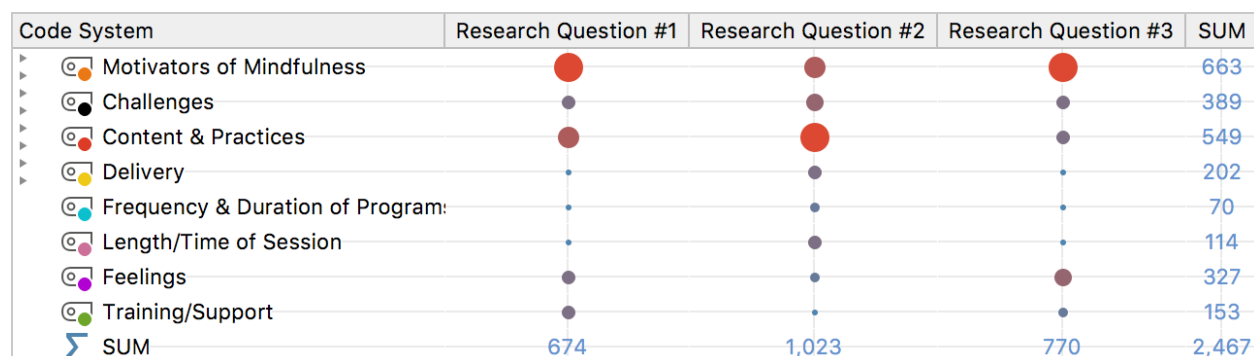
Figure 7: Matrix: Research Question Analysis

Figures 8 through 15 are matrices of each thematic family and their codes by teacher. Across all teachers, the most frequent reason why mindfulness is taught in this setting was being able to see growth/benefits in students followed by developing focus and/or awareness in students and developing resilience/coping skills respectively. Teachers seldom mentioned character development as a motivator for teaching mindfulness although some form of character development appeared in 9 of the 13 teacher's transcripts. The least mentioned motivators in teaching mindfulness were technology dependence and performance/athletics as only 5 of the 13 teachers mentioned it during the interview process.

Teachers also varied greatly in the number of motivators they mentioned throughout their three interviews. Teachers #1 and #8 had the most experience with mindfulness as far as formal training and daily usage; they were the only teachers that cited 19 out of 20 possible motivators as a reason for infusing mindfulness into their teaching practices. Teachers: #3 and #11 could not name as many motivators for teaching mindfulness in the classroom. Teacher #13 who had similar teaching experience as teacher #1 had the fewest motivators to teach mindfulness of any teacher. Clusters of motivators were found to be more important to some teachers than others, for example: teacher #2 stated curiosity, differentiation/needs of individual students, and seeing

growth/benefits in students as greater motivators than exposure to mindfulness, other teachers, or character development. Teachers #3, #5, and #12 did not feel pressure (either positive pressure in the form of encouragement, or negative pressure in the form of mandating mindfulness practice) from administration while teacher #4 mentioned that administration was a main motivator. Codes that were classified under "other" motivators of mindfulness were statements that could not be classified into the other codes and included motivators such as: state standards, developing relationship building, developing a sense of purpose, and developing trust with the students.

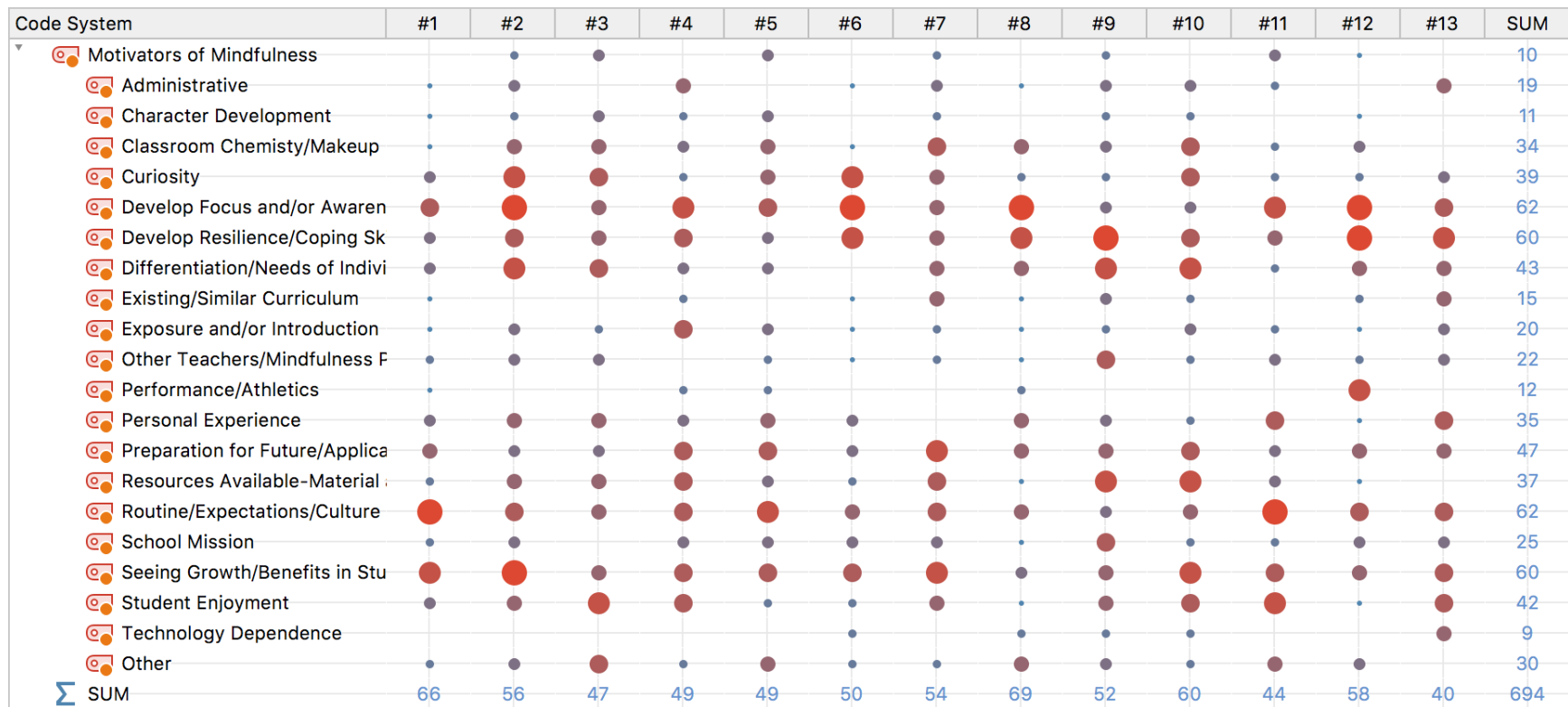| Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
▾ 🔴 Motivators of Mindfulness		•	•		•			•		•	•	•		10
🔴 Administrative	•	•	•	●	•	•	●	•	●	●	•		●	19
🔴 Character Development	•	•	●	•	●		•	•	●		•	•		11
🔴 Classroom Chemisty/Makeup	•	●	●	•	•		●	●	•	●	•	•		34
🔴 Curiosity	•	●	●	•	●	●	•	•	•	●	•	•	•	39
🔴 Develop Focus and/or Awaren	●	●	•	●	●	●	•	●	•	•	●	●	●	62
🔴 Develop Resilience/Coping Sk	•	●	•	●	•	●	•	●	●	•	•	●	●	60
🔴 Differentiation/Needs of Indivi	•	●	●	•	•		•	•	●	●	•	•	•	43
🔴 Existing/Similar Curriculum	•	•		•	•		•	●	•	•		•	●	15
🔴 Exposure and/or Introduction	•	•	•	●	•		•	•	●	•	•	•	•	20
🔴 Other Teachers/Mindfulness F	•	•	●	•	•	•	•	•	●	•	•	•	•	22
🔴 Performance/Athletics	•		•	●	•		•	•		•	•	●		12
🔴 Personal Experience	•	●	●	•	•	•	•	●	●	•	●	•	●	35
🔴 Preparation for Future/Applica	●	•	●	●	•	•	●	•	●	•	●	•	●	47
🔴 Resources Available-Material	•	•	●	●	•	•	●	•	●	●	●	•	•	37
🔴 Routine/Expectations/Culture	●	●	•	●	●	•	●	●	•	•	●	●	●	62
🔴 School Mission	•	•	•	•	•	•	•	•	●	●	•	●	•	25
🔴 Seeing Growth/Benefits in Stu	●	●	●	●	●	●	●	•	●	●	●	●	●	60
🔴 Student Enjoyment	•	●	●	●	•	●	●		●	●	●		●	42
🔴 Technology Dependence					•	•		•	●	•			●	9
🔴 Other	•	•	●	•	•	•	•	•	•	•	●	•		30
Σ SUM	66	56	47	49	49	50	54	69	52	60	44	58	40	694

Figure 8: Matrix: Motivators of Mindfulness

Figure 9 illustrates a matrix showing how each teacher felt trained and supported. There were nine areas that were identified: administrative training, books and literature, colleagues and friends, college courses, curriculum writing, online, professional community, professional development, and for statements that teachers felt they did not have training, a no formal training code was assigned.

The most popular form of training and support available was through colleagues and friends followed by professional development and professional community respectively. Books and literature, and online methods tied as a fourth option, while the least mentioned form of training was that offered by administrators, in which only one teacher (teacher #9) mentioned. Nine of the 13 teachers also mentioned that there were instances in which they felt little or no formal training was available in the school district but were able to cite other resources available to them in other interviews. Teacher #4 struggled with naming resources.

Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
Training/Support		●	●	●	●			●	●	●	●	●		14
Administrative Training									●					1
Books & Literature	●	●	●		●	●						●	●	15
Colleagues & Friends		●	●		●	●	●	●	●		●	●	●	28
College Courses	●	●			●	●	●				●	●	●	14
Curriculum Writing	●	●	●			●		●	●	●	●	●	●	13
Online	●	●	●		●	●	●	●	●	●	●	●	●	16
No Formal Training	●	●				●	●	●	●	●	●	●		13
Professional Community	●	●	●		●	●	●	●		●	●	●	●	17
Professional Development	●		●		●	●	●	●	●		●	●	●	22
∑ SUM	11	19	11	1	9	12	11	13	14	8	15	17	12	153

Figure 9: Matrix: Training and Support

Throughout the interviews, teachers expressed certain feelings to the researcher and these were grouped into one of 12 codes: apprehensive, awareness and insight, calmness, conflict, disappointment/exhaustion, empathy, excitement, frustration, hopeful, gratitude, happiness, or unknown. These feelings are illustrated in figure 10 matrix. Every teacher demonstrated awareness or insight when asked to describe mindfulness practices. For many teachers, awareness and insight proved to be the most common feeling demonstrated except for teacher #3 who identified more with unknown feelings, and teacher #8 who demonstrated more empathy throughout the interview process. For many teachers (teachers #1-#4, #9-#13) empathy was mentioned quite frequently. Following empathy, statements identifying the feelings of hopefulness and excitement were highlighted in the interviews.
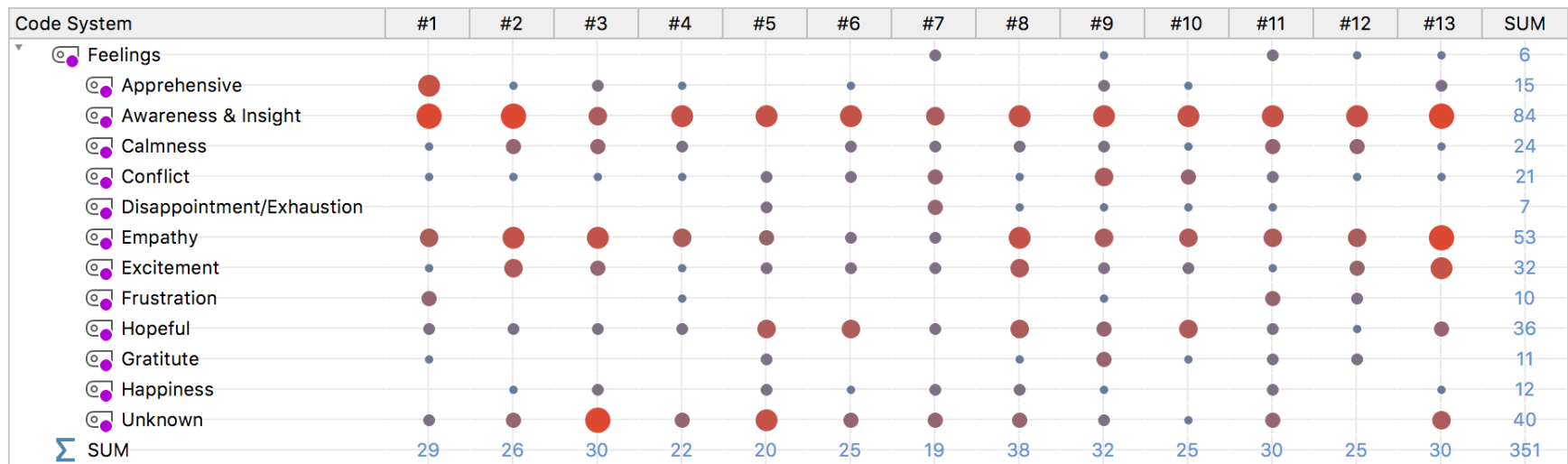
Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
Feelings							•		•		•	•	•	6
Apprehensive	●	•	•	•		•			•	•	•		•	15
Awareness & Insight	●	●	●	●	●	●	●	●	●	●	●	●	●	84
Calmness	•	●	●	•		•	•	•	•		●	●	•	24
Conflict	•	•	●	•		•	●	•	●	•	•	•	•	21
Disappointment/Exhaustion							●	•	•		•			7
Empathy	●	●	●	•	•	•	•	●	●	●	●	●	●	53
Excitement	•	●	●	•	•	•	•	●	•	•	•	●	●	32
Frustration	●			•					•	•	•			10
Hopeful	•	•	•	•	●	●	•	●	●	●	•	•	•	36
Gratitude	•			•			•	•	●		•	•		11
Happiness		•	•		•	•	•	•	•		•		•	12
Unknown	•	●	●	●	●	•	•	•	•	•	●		●	40
Σ SUM	29	26	30	22	20	25	19	38	32	25	30	25	30	351

Figure 10: Matrix: Feelings

Figure 11 shows a matrix of the length and time of sessions. A majority of the responses described using mindfulness interventions lasting longer than 15 minutes followed by interventions lasting in the 6-10-minute range. Mindfulness duration differed among teachers depending upon the sport or health unit; most teachers felt that the duration of the intervention should reflect the unit itself such as more mindfulness time for a teacher in a mental health unit as opposed to a human sexuality unit. Five of the 13 teachers mentioned using variable length of sessions. Teachers with the most experience with mindfulness trainings (teachers #1, #2, #8, and #12) had more responses with longer mindfulness class time sessions, while younger teachers (teachers #4-#6) tended to have shorter mindfulness sessions. Teacher #13 with over 20 years of experience used shorter sessions under five minutes because of the self-directed methods she was using at the time of this research.
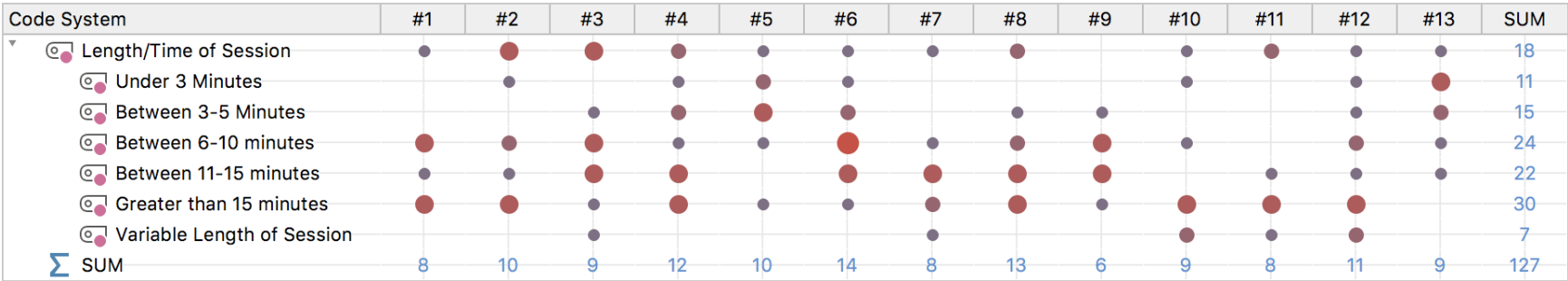
Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
Length/Time of Session	•	●	●	•	•	•	•	•	•	•	•	•	•	18
Under 3 Minutes		•		•	•	•				•		•	●	11
Between 3-5 Minutes			•	•	●	●	•		•			•	•	15
Between 6-10 minutes	●	•	●	•	•	●	•	•	●	•		•	•	24
Between 11-15 minutes	•	•	●	●		●	●	●	●		•	•	•	22
Greater than 15 minutes	●	●	•	●	•	•	•	●	•	●	●	●		30
Variable Length of Session			•				•			•	•	•		7
SUM	8	10	9	12	10	14	8	13	6	9	8	11	9	127

*Figure 11:*Matrix: Length/Time of Session

Teachers were asked about the frequency of their programming and over how many days mindfulness covered various parts of the curriculum. Figure 12 displays the matrix of responses matched to what individual teachers mentioned they employed when it came to mindfulness practice duration.

The responses illustrate that the most popular duration was during a unit or chunk of time. Normally units of instruction lasted approximately 10 days. Teachers #1, #6, #7, and #10 identified that units/chunks of the curriculum were being utilized. Except for teachers #2, #10, and #13, all teachers employed mindfulness at some point throughout the year in a sporadic fashion.

Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
Frequency & Duration of Programs	•	●	●	•			•			•	●	●		13
Regular 1x/week	•	●		●		●				•		•		9
Regular 2x/week			•			•	•					•		4
Regular Every Class	•				●		•	●		●	•	•		11
Sporadic	•	•	•	●	•	●	•	•	•	•		•		15
Unit/Chunk	●		•		•	●	●		•	●		•	•	19
∑ SUM	7	5	6	5	4	7	8	4	4	9	4	7	1	71

Figure 12: Matrix: Frequency & Duration of Program

The delivery of mindfulness varied from teacher to teacher. Teacher #2 was the only teacher who mentioned all the various approaches and the different methods of delivery. The most popular approach was the indirect approach in which individual strategies are used instead of a program. Every teacher mentioned some informal method of teaching mindfulness whether it was an idea taken from an existing curriculum or if it was simply an experimental trial-and-error meditation that suited their class for a particular day. Nine of the 13 teachers employed the direct approach either during a unit or past practice, while six teachers tried to employ a combination of both direct programming and indirect strategies.

Twelve of the 13 teachers described using some form of scaffolding to build their mindfulness teaching practice. Twelve of 13 teachers also mentioned employing a self-guided mindfulness technique in their classes. Technology-guided mindfulness was the least utilized technique with only 7 of 13 teachers accounting for use. Figure 13 shows the matrix of delivery matched up with teachers.

Figure 13: Matrix: Delivery

During interviews, teachers described a wide array of challenges. As these challenges were mentioned they began to grow until 16 codes were eminent. These codes were: acceptance/support, attention span, curriculum, immaturity/behavioral issues, insufficient time, lack of feedback, lack of knowledge, logistical issues, lack of support/resources, pacing, personal practice, pragmatism, progression, quality of sessions/content, time of day, and unmotivated. The most frequently cited challenge was acceptance/support of program, which was mentioned by all teachers. Several teachers (teachers #1, #4, #5, #7, #8, #10, and #11) also cited acceptance/support of program as one of their greatest challenges. Other teachers reported other challenges greater than acceptance/support such as teacher #2 who had more logistical challenges indicating a concern over gym space, noise, and equipment need. Teachers #3 and #13 who described insufficient time to incorporate mindfulness as a challenge; teacher #6 who reported immaturity/behavioral issues, teacher #9 who had issues making mindfulness pragmatic for students, and teacher #12 who identified a need for developing curriculum rather than using random strategies. Only two teachers, #2 and #13, mentioned that the time of day was another perceived challenge when implementing mindfulness programming.
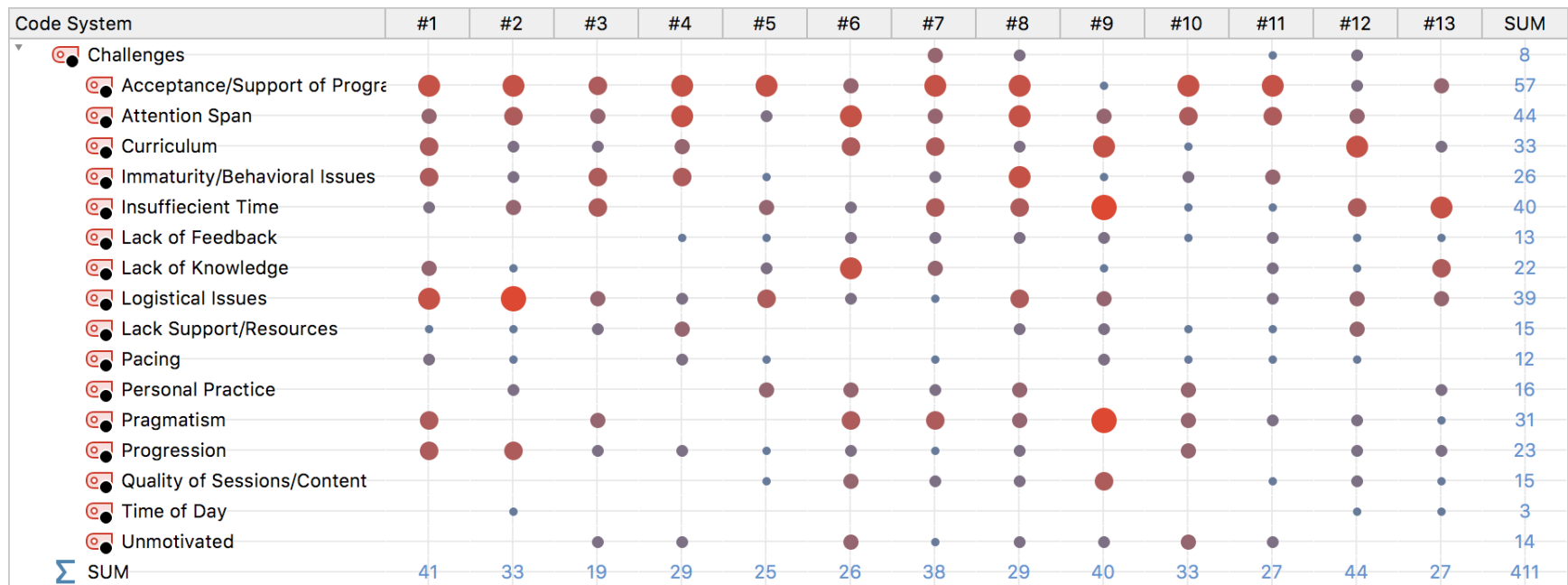
Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
Challenges														8
Acceptance/Support of Program														57
Attention Span														44
Curriculum														33
Immaturity/Behavioral Issues														26
Insuffiecient Time														40
Lack of Feedback														13
Lack of Knowledge														22
Logistical Issues														39
Lack Support/Resources														15
Pacing														12
Personal Practice														16
Pragmatism														31
Progression														23
Quality of Sessions/Content														15
Time of Day														3
Unmotivated														14
Σ SUM	41	33	19	29	25	26	38	29	40	33	27	44	27	411

Figure 14: Matrix: Challenges

Figure 15 illustrates how teachers identified content and practices throughout the interviews. In addition to the various content and practices used, the research also yielded information on whether certain practices were considered positive or negative. Teachers generally considered most of the practices to be more positive for both them and their students than negative. The content and practices generated 14 codes: applications, articles/books/literature, bodily senses, manipulatives, meditation, mindful breathing, mindful coloring, mindful walking, progressive relaxation, puzzles, variety of content, video/Animation, visualization/script, websites/online materials. Three of these code categories were broken down into sub code categories. Bodily senses were broken down into three sub codes: body scan, mindful eating, mindful listening/music. Mindful listening/music was also broken down into three: these included natural sounds/nature sounds, classical, and Zen music. Meditation was broken down into two sub codes: self-directed meditation and guided-meditations. Reflective practices was the last code group that was broken down into sub codes, specifically four sub codes: discussion, doodling, journals, and positive-talk/gratitude.

Of all the variety and content, teachers tended to mention that a variety of content was used more frequently in some of their practices than one specific type of practice. Teacher #6 was the only teacher that did not specifically mention the words "variety of content" or some other derivative such as "range of activities" or "number of strategies", however teacher #6 did mention either experimenting or using different practices. As with other categories in the code system, teachers differed in using content and practices. Teachers #1, #2, #4 and #9 reported the greatest variety of content and practice while teachers #3 and #10 chose to use certain practices more consistently than others. Teacher #9 was also the only teacher to identify using the three different type of music in her mindfulness programming. The content and practice that had the single largest reporting of use was the practice of mindful breathing with every teacher being

able to name the variation of the method they use in their classes. While reflective practices came up in conversation with every teacher, it was not reported to be as widely and as consistently used as mindful breathing. Of the two types of meditation mentioned during interviews, teachers were able to recall instances when they used guided-meditations rather than self-directed meditations. The least reported content and practice used was the reflective practice or positive-talk/gratitude report by teacher #12, followed by reading with only two teachers (#4 and #5) stating that they used reading as a method of practicing mindfulness with their classes. Both the reflective practice of doodling and mindful eating were practiced by three teachers, and progressive relaxation techniques were practiced by five teachers.

Code System	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	SUM
▼ 💿 Content & Practices	•		•				•	•	•	•		•		15
▬ minus	•	•	●	•	•		●	●	●	•	•	●	•	36
▼ ✚ plus	●	●	•	●	●	●	●	•	●	•	•	●	•	49
💿 Applications	•	•	•	•			●	●					•	17
▼ 💿 Articles/Books/Literature	•	•			•								•	11
💿 Bodily Senses	•	•	•			•	•			•				12
💿 Body Scan	•	•		•		•	•			•				15
💿 Mindful Eating			●		•					•				5
💿 Mindful Listening/Music	•	•	•	•	•	•			•	•	•		●	19
💿 Natural Sounds/Nature								•					•	3
💿 Classical								•					•	2
💿 Zen/New Age	•	•						•			•			7
💿 Manipulatives			●							•				6
💿 Meditation	●	●		●	•	●		●	•			●		28
💿 Self-Directed Meditation	•				•			•						7
💿 Guided-Meditations	●	●	•	•	•	●			●	•	•	•	•	29
💿 Mindful Breathing	•	●	•	•	●	•	•	•	●	•		●	•	35
💿 Mindful Coloring	•	•	•	●			●							18
💿 Mindful Walking	●	•	•	●			●	•		•				22
💿 Progressive Relaxation		•	•		•		•		•			•	•	10
💿 Puzzles				●							•			10
💿 Reading				•	•									2
💿 Reflective Practices	•	•	●		•	•	•	●	●	•	•	●	•	32
💿 Discussion	•	•	•			•		•		●		•	•	17
💿 Doodling														4
💿 Journals	●	•	●	●	•	●	•	●	•	•	•	•		33
💿 Positive-Talk/Gratitude											•	•		3
💿 Variety of Content	•	●	●	●	•		●	•	•	●	•	●	●	40
💿 Video/Animation			●					●	●	●	●			24
💿 Visualization/Script	●	•	•		●	•		●	•			●	●	29
💿 Websites/Online Materials	●	•	•	•	•	•		•	•	•		•	●	16
💿 Yoga	●	•		●	•	•				●		•	●	23
Σ SUM	62	49	40	50	38	44	45	48	43	50	31	37	42	579

Figure 15: Matrix: Content & Practices

Thematic Results of Study

Eight themes emerged revealing a vast array of awareness and insightfulness from the participants. These eight themes were:

1. Teachers select content mindfully basing decisions on class climate and make-up.

2. Personal history and personal practice influence ability and perceived support.

3. Implementation experience varies and directly affects perceived outcomes.

4. Modeling behavior for students and other staff.

5. Intrinsic and extrinsic motivation remain relevant factors to implementation.

6. Challenges become motivators.

7. Various levels of perceived organizational support.

8. Teachers developed higher levels of empathy from teaching mindfulness.

Table 3

Thematic Results of Study

Research Question	Themes
Q1. What content do teachers use when teaching mindfulness?	Theme 1: Teachers select content mindfully basing decisions on class climate, make-up, and individual student needs.
	Theme 2: Personal history and personal practice influence ability and perceived support
Q2. What mindfulness methods of delivery, length and frequency of delivery do these teachers use?	Theme 3: Implementation experience varies and directly affects delivery and perceived outcomes.
	Theme 4: Modeling behavior for students and other staff.
Q3. How have mindfulness-based interventions (MBIs) impacted your teaching?	Theme 5: Intrinsic and extrinsic motivation remain relevant factors to implementation.
	Theme 6: Challenges become motivators.
	Theme 7: Various levels of perceived organizational support.
	Theme 8: Teachers developed higher levels of empathy from teaching mindfulness.

*Note: Themes in table directly relate to the three research questions.

Theme 1: Teachers select content mindfully basing decisions on class climate, makeup and individual student needs. During the interview process, teachers discussed a variety of content ranging from web-based computer applications and guided-meditations, to activities and strategies that were more reflective such as journaling. While each teacher had their own repertoire of tools to use during mindfulness sessions, nothing was more prevalent than the need for teachers to adjust their practice and materials based on their student and classroom needs. Every teacher was able to speak to the topic of differentiating instruction for groups of students, and at times spoke on deeper levels of individualizing for further subsets of students.

Teacher #1 gave a little insight into her thinking when asked about the content she said: "The main thing I want them to do is find something that's going to work for them." When she

spoke about her content, she cited a variety of resources. Teacher #1 believed that there was something in mindfulness for everybody and most students thought that it consisted of a few similar practices: "Everybody has their own reason for wanting to practice mindfulness and at this point some of them have just not realized the benefits and how it can be something they can implement and benefit from in their lives."

When asked what she found was the most important she commented that the growth of the student is what mattered to her most and that she would reach the students on an individual basis: "I would definitely say growth as far as understanding where the... what the students' needs are and trying to tailor a mindfulness lesson to what I think the students are looking for."

Teacher #2 said that the content she used was also based upon instructional techniques and individual students: "It's according to what techniques I use or according to my students' individual needs." When asked to clarify she asked rhetorical questions: "What problems? What anxiety? What issues? And you kind of base it on that. So, I guess would be a combination of the time and geared to the age-level of your particular students."

During her second session, teacher #2 was passionate that the techniques that she uses in her classes are a result of the needs of the individual students. She argued that as a teacher, it is less about the content and more about the individual: "You're not just teaching because you have to teach a specific thing on a specific day, you're teaching to the students' needs."

When teacher #3 was interviewed, she stated that while she used more of a direct-type of delivery, her main concern was to make the material adaptable to her students: "So I use the direct, but I modified that for my classes to make it more student appropriate. For the students in my class based on their needs." Her reasoning was simple, she did not know what each individual student needed, and she chooses to experiment with the different types of content in the hope that she can help them attain a mindful state through self-guided practices:

Based on those student needs, I don't know what every student in my class kind of needs. So, you know they usually voice that: "Hey can I color instead of you know doing two minutes of mindfulness?" "Can I clear my mind that way?" So I don't have a problem with that. It's just self-guided that way.

Teacher #4 was among the youngest in the cohort of teachers interviewed. When asked on the type of content she used, she simply responded: "It depends on the student really." Teacher #5 with a few more years of experience made it clear that the content she chose was based purely off the quality of the sessions she would be able to offer in an attempt to keep the student engaged: "So we want to make sure that we can keep the students engaged and do it for quality versus length of time." While her classes were generally run by the students, she oftentimes gave her students hints at the type of material and in her early sessions, she had her students researching three mindfulness-based practices they would like to implement during class time:

> We wanted to give them a little bit of a say to it. So the way we started off before they create their fitness routines they do a little bit of research on the mindfulness so they get to look through when they get to research three different types of ways to implement the mindfulness and then they pick based on their knowledge already but also just the research they've done, which I think would be most beneficial.

While this practice is not widely used, teachers providing choices has been used in other classroom and curricular contexts. Wisner and Starzec (2016) found that a byproduct of mindfulness skills programming in an alternative high school curriculum lead to personal empowerment and growth for adolescents. This is important for a number of reasons: (1) adolescents often have very few choices in their living arrangements, the academic process, and physiological development, (2) giving them a choice may increase positive social relationships,

and (3) it provides a locus of control so that they may begin to learn skills that will help them in both a work and a non-work setting. Teacher #7 believed in providing that element of choice when offering mindfulness content: "I believe one of those reasons for that would be because the students have their own free gauge where they could kind of navigate it on their own. They're not specifically being told to do something."

Teacher #8 used a method called the S.M.A.R.T. method: "So my students will have one of three things: we can do Script, Animation, or Meditation. I've not used the "R" or the "T" to be quite honest." When asked where teacher #8 learned about this technique, he mentioned one of his good friends who happened to be a strength and conditioning coach. This technique used one of three methods: a script, either a personal reading or a story; an animation, which was identified as a visualization; or a meditation, it could be guided, or a student could self-guide him or herself through one. However, teacher #8 was also a proponent of choice: "Those three I think are the most beneficial and I give the kids the options to do it… I give them those three options."

Teacher #8 spoke about how he managed to get all students to support his content and he was able to bring the conversation back to the element of choice, "You're still holding them accountable for getting the content done, whether it's mindfulness, whether it's in a regular curriculum for the day, or whatever we're teaching, it's still giving them the option to instill giving them freedom of choice." Teacher #8 was asked if there were times when students wanted to use different content and he replied: "Again if it's going to be quality stuff that the students are focused on for a period of time then I have no problem instituting it into the classroom that day." Since teacher #8 is the only teacher who teaches an at-risk population at the high school, he was mindful to note that some students could not do certain activities for the fear that they would trigger intense emotions from past trauma: "What I have found with my ASPIRE kids and my Project Trust kids, a lot of the script stuff brings up bad memories." This is consistent with

Creswell's (2017) warning that: "a participant who has a life history of trauma might have these trauma memories resurface during mindfulness training exercises, potentially triggering a major depressive episode." (p. 510). What made teacher #8 successful was that he was aware that each of his classes had its own personality and that each student in each one of those classes required different content based on his or her needs:

> I don't want to sound like a broken record but understanding my culture of each class, is understanding the individual needs of each student… I want to be able to make sure I'm using student-based learning where I'm going to put a student in a position where they can be successful.

The individualizing of instruction seemed to be ingrained in these teachers. Teacher #9 recognized that teachers deliver content, but they teach students by putting their needs first: "You teach the person. Yes you deliver the curriculum, but your priority is to teach the person."

Teacher #10 did not take an individual approach, but rather a group approach. He recognized that each class has its own personality and, in the process, explained that administrators were not interested in what he was teaching, but rather in what students were learning: "They want to hear students' opinions, they want to see them work together, they want to see what they're doing, not necessarily what I'm doing. I think they want a little bit of everything." When teacher #10 was asked about the type of curricular content he was using, he did not mention anything specific and said that he had a "variety of strategies". He was asked to explain the rationale for having the variety of content rather than just choosing a small number of go-to strategies: "Every class is different. Every kid is different. Some things might work one way for one group of kids or the next group that doesn't work for all… Kind of tailoring it to each individual class."

Teacher #11 thought that the best content was anything that was reflective which permitted the students free-range to empty negative thoughts and feelings; he believed this gave the students an opportunity to outline things which may be personal to them: "The most successful content that I've used is when I give the students an introduction period to the activity for that day where they basically are just able to open-mindedly write whatever's on their mind."

Teacher #12 was less concerned about the content and more concerned about the pragmatism and the currency (how recent) of the content. He believed that infusing mindfulness has less to do with what content teachers chose and instead made a case for examining the other teachings that were prevalent in a teacher's class: "Most often just really try and keep up to date on formative/summative assessments. Making sure all over content is up to date. A lot of the other tasks don't directly impact what we're doing on a day-to-day basis."

Teacher #13 teaches the same course as teacher #5 and provides her students the freedom to deliver mindfulness to themselves through student-centered, indirect methods. She too used a variety of content, and gave them options to select: "things like readings, articles about touching their muscles, some of them have used, apps on their phone, some of them play music and then do readings, some of them use yoga poses and stuff like that."

Theme 2: Personal history and personal practice influence ability and perceived support. Teachers personal experiences with mindfulness in their own lives had an influence on their ability to teach mindfulness in their classrooms. Personal practice also influenced how much perceived support teachers felt they received from a variety of stakeholders including students, other teachers, administrators, and community.

Teacher #4 seemed to put it clearly in her final session when she stated:

If I'm not interested in doing it I'm not going to try it with other students because at this

point if I'm not interested in it and I can't get on board with it, I'm not going to try it with other students.

When asked to explain why she chose to work with certain activities with her students she replied: "because it personally interests me and I'm not going to force something on students that I personally wouldn't do."

When asked how personal practice influenced her teaching practice, teacher #5 who taught across grade levels from 10th to 12th grade responded: "The more comfortable you are— the better you're going to implement it, the more confident you will be and the more buy-in you'll get from the students." Understanding the content and the pedagogy are important for all teaching staff. Walking in blindly to teaching a mindfulness session poses an issue for staff because of the perceived problems that students may face.

Teacher #11 found that practicing his mindfulness content with his younger brother who was also a high school-aged student in a neighboring district gave him better insight into what the students experienced: "I got a younger brother who's actually in high school, so sometimes I'll ask him: 'What would you think if I did this in your class?'"

Teacher #6 found that practicing the lessons prior to teaching them could alleviate any potential issues: "So if the instructor can go through the trials and tribulations beforehand it will help them with any potential hiccups that the students might have." The idea that various types of mindfulness is uncomfortable to some has been well-documented. Kabat-Zinn (2013) cites an example from his early days of practicing the bodyscan at the stress clinic in Massachusetts, "when she was scanning through the pelvic region, she heard the word *genitals* for the first time. Hearing the word triggered a flashback of an experience that Mary immediately realized she had repressed since the age of nine." (p.81). Kabat-Zinn provided other psychological help to the patient and mentions the ability for the patient to get comfortable being in her own body. Some

teachers in the school district experienced difficulties working with students who had trouble either relaxing or focusing. An example of this is teacher #12 when he was asked if he enjoyed teaching mindfulness practices in his classrooms: "It's frustrating, but at the same time I wonder if those are the kids that are actually struggling with stuff in their lives to where they can't do this."

Here the teacher was concerned about balancing the needs of students with balancing the requirements of the curriculum. Teacher #2 provided some insight as to what she did with helping the students along:

> Once you tell them that you allow them to feel uncomfortable, let them know that it's not something that's going to happen immediately, that it's a practice and then the more they do it, and usually once that one time when they feel more calm they seem more relaxed.

> Teacher #11, a younger teacher, when asked: "What were the reasons for why they wanted to get up and leave?" In response to a student who had to leave his class, he replied: "One girl left crying went to a counselor didn't hear anything back from it. And then the other kid just said they need to leave the room for a little bit and was gone for about 20 minutes."

Teachers who identified themselves as practitioners of MBSR practices tended to be more open-minded, and better-equipped when working with the challenges of bringing an MBSR to the classroom. The concept of personal practice came up in numerous interviews. Lawlor (2014) asked "whether the programs should focus on providing teachers with mindfulness skills, or should programs be targeted to students?" (p.89). Teacher #8 reflected on his own practice and realized that he did not just want his students to benefit from his teachings, but he also wanted to join them: "I do it now, it's funny I find myself doing it whether it's just meeting for 10 minutes about something that interests me just to clear my mind whether it's writing about something." During his in-class observation he was able to speak to students candidly about his own personal

growth as both a teacher and an individual when giving a story to his students about being in the moment and understanding consequences: "I got to be honest with you, five years ago I probably never would've told you the story because it is uncomfortable to tell, but it is something that I've learned how to get comfortable to do again."

In this instance, teacher #8 felt comfortable and supported enough by his students to share a personal anecdote about his past and how he became the person he was today by reflecting on his own mistakes. Teachers may feel as though they need administrative support to become stronger teachers with MBIs, however, support (or lack of support) from students remains one of the preeminent reasons why teachers feel frustrated as evidenced by teacher #11 when he said:

I tend to get more impatient and frustrated when kids aren't doing what they're supposed to be doing… So I can see lack of participation and lack of effort definitely being a reason why I choose not to continue with mindfulness.

Teacher #1 echoed those same sentiments when challenging students to be open-minded: "It gets frustrating sometimes when I know what the benefits are and I just don't feel that the students sometimes give it a chance, and I get frustrated at myself maybe I'm not selling it correctly."

Other sources of support were evident to those teachers who did not consider administration or students in their interviews as a form of support; in many instances most teachers were able to rely on their colleagues for support, such was the case with teacher #7: "I would say the biggest support is just being able to compile different resources through cooperating teachers. As well as talk to different co-workers and things that they have used within their classroom." Teacher #6 said something similar: "With the audio-guided, I would find some sort of YouTube video or I've received audios from colleagues and we practice mindfulness through that method and with this stuff."

Teacher #8 felt that having conversations with other teachers about pedagogical methods provided a useful starting point and linked these conversations to developing leadership, motivational skills, and being in the present: "I've had a lot of support from our teachers just having conversations. For instance, having conversations with them about various things, it could be anything about leadership, to motivation, to just talking about the here and now."

Theme 3: Implementation experience varies and directly affects delivery and perceived outcomes. Every teacher had a personal story to tell about the various mindfulness practices and content they used. They each demonstrated that there was no right way to use mindfulness in their own classes. Some of the teachers were even hesitant to be interviewed at first believing that they did not have much information to provide the researcher. However, after interviewing them, it was clear that even though they may have been mindfulness practitioners for a brief period, they were more than competent and demonstrated proficiency in using a wide variety of resources.

Teachers were able to cite instances in which they use a variety of techniques. As teachers were asked what content they used for teaching mindfulness in their classes, some of them described the actual practices that they used: "I also find that the tension and relaxation is one that you can do for longer with most students because you're getting them to focus on body part by body part" (Teacher #2), or they used the clinical terminology for the method itself such as "progressive relaxation", or "body scan".

Teachers who had been implementing mindfulness for longer periods of time demonstrated greater efficacy towards their ability to teach mindfulness to their students. Teacher #1 explained that she did not have an issue with selling the idea of mindfulness to her students because she had been incorporating it herself for a period of time: "I would say I'm

definitely more confident because I've been doing it more and I know from myself how much

mindfulness has helped me with stress and anxiety and everything else. So, it's not a hard sell for

me." When asked after the observation of her lesson, teacher #1 stated in the final session: "I

find it very easy to teach different types of mindfulness to them."

Similarly, teacher #3 mentioned that she has grown a lot in the past year and how her

confidence level has grown: "I think I've grown tremendously over this past year in finding

research and reading about mindfulness and talking to people and watching what other people

do. So going from nothing to feeling pretty confident about it."

Confidence in teaching mindfulness allowed teachers to venture out of their comfort

zones, if they did not feel comfortable with the material, then they were honest about their levels

of comfort with the pedagogy. Teacher #9 relied on her skills as a veteran teacher with over 20

years of experience to help her navigate the challenges to trying new mindfulness content:

> I like that I'm the kind of teacher who when I plan and I'm confident in the knowledge,
>
> the delivery and the strategy to implement is not my greatest struggle. I think it's really
>
> just having confidence that I know what I'm talking about and knowing the resources that
>
> are available to them and having a visual to go along with what I'm trying to teach.

Similarly, when teacher #7 was asked about implementation and behavioral issues in the

classroom he brought up the concept of confidence: "I think confidence does have a direct

correlation with the classroom management." Teacher #12 expressed that first-year and

inexperienced teachers must start small and then build their repertoires of activities: "Maybe for

a first-year teacher who's never done any type of mindfulness meditation or mindset work having

one to two things where you can keep going back to that barrel and utilizing it to gain comfort

would be important."

Because the school district employs a block schedule (80-minute blocks once every other

day), teacher #3 stated she lacked understanding because there was no pre-existing "model" for a

school district of this size: "The length of the session has been most difficult for me because I'm

not really sure how long each session should be. I mean there's no model for that."

The term "model" is similar to using the word "curriculum" when viewed through the

lens of an educational context. The challenge that teachers reportedly faced was the lack of a pre-

existing curriculum for high-school aged students or one that could be immediately turnkeyed

into the dynamics of a larger school environment across all four high school grade levels. This is

consistent with what Lawlor (2014) recommends: "Educators looking to employ mindfulness-

based programming in their schools should give careful consideration to how the program will be

implemented in order to ensure program fidelity and sustainability of the program within the

school context." Teacher #12 mentioned: "It would be in our best interest as a department to

develop a 9-to-12 curriculum that we implement as part of P.E. that can be extended into cross-

curricular areas that other teachers may be able to utilize." Teacher #12 added that he usually

delivers most of his content through teacher-centered instruction, especially since he is also a

sport coach and because he has access to sports psychologists: "I typically, especially with my

athletes, I typically deliver most of the content. I have also used Skype or we've had a sports

psychiatrist Skype in and do activities with the athletes and they've been very receptive to that."

Teacher #9 found that she was still experimenting and had to find a model she liked

before venturing further into other elements of mindfulness: "I'm still on the exploring stages. I

think that as I implement more I'll find maybe a group of videos or a specific person whose

model I like. But right now I'm still kind of in an exploratory phase." When asked why she used

more video-based mindfulness sessions, teacher #9 stated: "because I'm not comfortable with

doing it myself, self-guiding, or not self-guiding but me being the one who is guiding them

through the experience–I'm not there yet."

Teacher #5 demonstrated awareness during her final session when asked about her content and practices that she would have liked to incorporate that she has yet to try: "I don't know what I don't know. But I know there's definitely—I have a select few that I like and I'm strong in but I'm not really good. I don't even know what the other ones are."

When asked: "Has it gotten easier as you've practiced more?" Teacher #5 replied, "Yes definitely, the more experience the easier it's gotten." As teachers practice the materials more, they become more confident in infusing the content and helping their students apply the learnings. When students were more likely to participate, this led to a virtuous cycle of teachers enjoying their lessons more as teacher #10 stated: "It can be hard on both ends for sure. But it's all more enjoyable too when you find an activity that they really do get benefit out of."

In one instance, teacher #12 claimed that his understanding of the mindfulness strategies was directly related to how much he practiced them in his own life:

> It allows me to get a better understanding by doing some of the strategies. Personally, it allows me to get a better understanding of what I'm looking for or what I'm hopefully expecting this year's students to experience by being involved in these interventions.

Teacher #12 predominantly teaches upperclassmen, and while he considered his understanding of mindfulness to be minimal compared to other educational practitioners, he still believed in conducting teacher-centered/teacher-driven mindfulness sessions so he could provide both a foundation to their understanding and an element of autonomy for the students in his course:

> I tried to also have the students kind of go off on their own and do their own research. I found that to be a little less effective to have them run it because some of them don't really understand what they're trying to get at and what the big picture is with it.

Teacher #13 taught upperclassman as well, however, her experience on mindfulness

sessions were substantially different since she chose to incorporate student-centered/driven

sessions which are self-driven by the students for the students: "Some students embraced it and

were really into it and more confident with it; other students were still feeling awkward doing it.

So, I think that definitely played into the success of how that portion of the lesson went."

When asked why she chose to have the students perform mindfulness for themselves and

present to the rest of their classmates, she responded:

I guess I'm kind of just jumping in with them. As they were doing their research, they

asked questions like: "Ms. [Teacher #13] do you think this would be good?" I didn't

know. I'm like: "Yeah let's try it, let's see." So I guess it's a work in progress.

Most teachers' experiences tended to be positive and most made comments to the

differences in student demeanor, however after asking for specific results in the classroom and/or

student achievement, teacher #2 gave a simple response: "I haven't done enough to look at

testing and we haven't done relaxation methods to testing, so we have to see if there's any real

results." She then added: "I believe there are."

Theme 4: Modeling behavior for students and other staff. A fourth theme that emerged

was that teachers felt the need for teachers to model behavior for the stakeholders around them.

They felt that by modeling the behavior, it would not only be easier to lead, but it would also

facilitate students to follow in their example. Teacher #1 stated: "Oh I like to lead by example.

So for them to be able to see me practicing the mindfulness with them or explaining how I might

use mindfulness and how it's benefited me." In this statement she acknowledges that mindfulness

has helped her and for her students to get the same benefit, she would have to lead by example.

When asked why she felt that way she responded: "Again I don't like to teach anything I can't do

myself. So, I like to lead by example."

Teacher #2 was more apt to use technology in her mindfulness sessions; however, she

was grateful for being able to do mindfulness with her students during the teaching day:

"Sometimes I get a chance to do the mindfulness with them and it definitely calms me down. I do

deep breathing exercises. I can see it, I checked my FitBit so I can see my pulse lowering."

When asked why she chose to do it with her classes during school hours, teacher #2 said that it

allowed her to view her students in a more positive light, particularly with being open-minded: "I

calm down with the students and then when we can do that, we're much better, we're much more

focused as a teacher, to be open-minded to our students and all of their behaviors."

Teacher #3 had a similar experience with practicing mindfulness with her students:

"Sometimes I'll do the mindful breathing and I'll do some of the mindful things with them and I

feel good that I'm teaching this to them, but I also feel good when I participate in the

mindfulness."

Teacher #4 felt the need to model mindfulness with her students because she felt that her

experience with dialectical behavioral therapy (DBT) helped her understand mindfulness.

Ultimately, she exposed her students to methods that were effective in her own life:

I mean mindfulness is one of the major components of dialectical behavioral therapy, so

I've been through that in inpatient and outpatient therapy and it's one of the major

components. I found that mindfulness is one of the major components of DBT and I

learned all about mindfulness when I went through it. I've learned about a whole bunch of

activities; I learned about ways to incorporate mindfulness into my daily life.

Mindfulness has many different forms and teacher #5's awareness stemmed from her

being able to acquaint herself with the background information:

A lot of it is just the background information that allowed me to build my content

knowledge and be able to share that with the kids and just be exposed to different types of

mindfulness whether it's mindful walking/mindful eating because there are a lot of different aspects that the kids don't realize.

When asked if she practiced mindfulness herself in addition to gathering information about background knowledge she responded:

I think I do my own kind of mindfulness versus what I do with the kids. I talked about the readings before and that's kind of a way for me to put things, it's more of me putting things in my life into perspective, so I wouldn't necessarily say I do.

The most interesting comment however was when teacher #5 stated how she benefitted from practicing mindfulness in her own life: "I think it just gives me a little bit more experience to draw off. I mean the whole idea of mindfulness is just being at peace with your decisions and yourself and being confident."

Teachers not only have to be role models for their students, they also should believe that what they are teaching has value. Teacher #6 stated that he was no expert in mindfulness, but for him to be able to instruct it, he had to at least try it and believe that his students would need it someday:

I'm a firm believer in anything that I teach or like to try and do myself, particularly these kinds of methods meaning mindfulness meditation, unless you actually believe in it I'm quite sure you won't be able to get your kids to believe in it.

As the session went on, teacher #6 stated that for students to support the practice of mindfulness, teachers have to support the program and experiment with different strategies on themselves:

Just buying into the practice and really taking my own personal time to practice mindfulness and taking notes on how I felt and trying different types of practice whether it was like a body scan, meditation, or a sensory scan—something of that nature.

Teacher #8 mentioned something similar about his own practice of mindfulness and modeling appropriate stress reduction strategies with his students. He used the example of a "reset button" and how it was able to assist him in his personal life and being able to choose what outside influences were able to influence him:

I think it's something that I try and do—hit the reset button myself and focus on things that are really important rather than allowing the beginning, the outside sources, the stress of the job and that I don't have to let it affect my focus, my life, my happiness, all those other things.

Some teachers expressed difficulty leading classes that were not as active as they liked. In this case, teacher #10 was able to relate his ability to teach and his ability to model to his ability to enjoy and engage in strategies that were less active:

I'm not always excited about doing it but it can be boring to lead sometimes. As an educator because like I said myself, I am a very active person. I like being active in my own classes and sometimes leading mindfulness is a little stale.

When asked if he prepared for those less-active lessons prior to exposing his students to them he replied: "Yes I prepare myself with every lesson that I bring into the kids for the first-time trial and error." He believed that even though some of the material may not be as engaging, he wanted to make sure he was able to feel what a first mindfulness practice would be like for his students, "I'll do it myself. I'll see the kinks, I'll work through the weak parts, the strong parts, and ultimately bring to class what I feel would be the best suited for those kids."

Teacher #13 was honest when asked about how she modeled mindfulness practices. She stated that she suffered from the same issues her students did, and she felt like she was getting pulled in several directions, however, she felt that it was a practice worth taking on:

I mean I definitely think there's a lot of room for improvement and I would like to

incorporate it in my own life and in some capacity but just like these kids I feel so crazy and I'm running from one place to another. So, I would like to meditate, or do yoga, or some sort of breathing activities in my own life but I haven't really yet."

Theme 5: Intrinsic and extrinsic motivation remain relevant factors to implementation.
Motivation came from both intrinsic and extrinsic factors as all teachers remained committed to implementing mindfulness-based practices in the classroom. Pink (2009) talks about the three elements of intrinsic reward systems: (1) autonomy, the ability for individual to have control over the process and the outcome, (2) mastery, the ability for an individual to become highly proficient in his or her practice, and (3) purpose, having a greater motive to perform a certain task and the ability to set one's own goals. In most sessions teachers were able to cite numerous reasons for why they wanted to teach mindfulness and continue to hone their pedagogy. Three teachers discussed the impact of stress hitting home and finding a way to help their own children: "It wasn't until my daughter started going through bouts of anxiety that I started really looking into ways to help her and that's when mindfulness started coming up in the things that I was looking at for her." (Teacher #1). Teacher #9 used the motivator of her young son who had issues coping in an elementary school classroom with anger:

> My son had some issues with his coping strategies and anger just kind of like going from zero to 10 on the anger scale too quickly so his temper and just kind of finding the words to talk about his feelings. He would explode before he could actually figure out what the problem was. So,
>
> I tried a couple apps on... there's "Calm" is one that I've used on the phone with him. Listening to soothing music before he goes to bed. There are also stories connected to that app that he would listen to before going to bed. So those are things that I used with him."

At the time of data collection, Teacher #13's child was a senior in the same school district; as a result, she was sensitive to the fact that other teenagers in her daughter's age group had struggles with various scholastic and extra-curricular pressures:

> I think it's the stress that they have. I mean I have a daughter that's a senior here. I see they're overwhelmed. They go from one thing to the other. They have sports after school, it wasn't like that when I was a kid.

All three of these teachers discussed their reasons for teaching mindfulness in their classes: purpose—essentially because they empathized with their students as though they were experiencing similar issues with their own children. Teacher #10 found purpose in another way, unless he could get his students to enjoy and find benefit from his lessons, he did not find them worth teaching. When asked if he enjoyed running sessions with his classes, he replied:

> If it's an activity that you know you have to at least expose them to but maybe they don't love. It can be hard on both ends for sure. But it's all the more enjoyable when you find an activity that they really do get benefit out of.

Teacher #10 having little formal training in mindfulness demonstrated mindfulness insight himself when he stated: "Mindfulness is one of those things where if you feel forced to do it, it's not worth it." Gunaratana (2015) suggests that all practitioners of mindfulness have a goal in mind because "for if we do not, and blindly follow somebody's instructions on meditation, we will simply be groping in the dark." (p.44).

Numerous times throughout the sessions teacher #10 demonstrated instances where purpose was not only key to being able to teach, but also being able to learn:

> Mindfulness is one of those things where people often think of meditation as the way to go but sometimes with kids it's hard to get them to do that correctly or even learn how because it does take a reasonable amount of time to teach them about what the purpose is.

For other teachers, purpose seemed to be the common motivator behind why they brought mindfulness into the classroom. Teacher #3 wanted her students to be able to make mindfulness applicable to the students outside of the classroom: "Will the students use mindfulness when they're not in the class? What's their takeaway? Do I want the students to kind of know what they can do and where to find the resources for that?"

Teacher #7 stated purpose in a similar fashion by putting mindfulness techniques to practice in the lives of his students:

> I think a big theme of mine personally is for them to be able to take away at least one or two things that when they are in a time of stress, or a time where they are caught up in their heads but too many things going on, that they can use one of these techniques or strategies to help them get through that moment of time.

Teacher #8 made similar sentiments, however, he believed in taking the time to allow students to acknowledge where the mindfulness practices have made changes:

> If we can get one student to believe in it and walk out of here four years from now and be able to come back to you ten years later and tell you "Thank you! Hey, you taught me this. I'm able to train my brain and be happy and focus on things I need to focus on." Then we've won.

Teacher #9 stated that her source of motivation was also purpose, and that it was paramount that when teaching mindfulness, she taught it well: "So if I do something, I want to do it well, and I want to do it right, and I want to do with purpose." Some teachers felt that by having students take control of their own mindfulness programming, the students would be able to get more out of those sessions. Teacher #5 indicated that she wanted her students to select strategies that they could immediately apply in their own lives: "Kids research three benefits and three different practices that they could incorporate and then they were able to pick of those three

which one they thought would best fit their daily lives and the lives of their classmates."

A concern was brought up among students having control of the content and the methods. Teacher #5 added that having good relationships with the students is important: "I find that I don't have too many discipline problems. I think the kids are coming in and I have a good relationship with them." Handing over control to the students was a step towards providing autonomy to the students, "There's definitely a positive classroom atmosphere and I think because each student is getting to lead their own." By allowing the students to lead themselves through various mindfulness-based activities the teacher was also able to build empathy in her classroom to those who presented: "They are a little bit more receptive to their peers, so they know it's a little intimidating to be up there and to be introducing something that you don't know if your classmates are going to like or not."

Teacher #13 taught the same grades and subject matter that teacher #5 taught and both opted to teach the content in a similar way. When asked about why she chose to have students lead the instruction she responded:

I like the different techniques that the kids have come up with and I like seeing how the classes, especially in the beginning when they were a little bit uncomfortable, but then they got more comfortable and they wanted to do it again.

Teacher #10 found that directing students to techniques allowed him to individualize instruction. In some classes direct instruction worked best, whilst in others indirect instruction was used to facilitate the needs of the students. When asked: what about them makes you think that they work the best? Teacher #10 replied: "Because they are geared towards the interest level of the students within each individual class."

Teacher #10 was able to provide another reason as to his rationale for incorporating mindfulness into his classroom. Besides the intrinsic motivations of purpose, autonomy, and

mastery, he felt that because mindfulness was slowly becoming more mainstream in other school districts, it would be the responsibility of today's students to become tomorrow's problem-solvers. He indicated that teaching students to solve problems involved an element of mindfulness with the ability to step back and analyze situations:

> I just think that's the task that they all have ahead of them as kids going into college or kids going into the workforce it's going to be problem-solving. So, it kind of ties in there that their content knowledge of things that they go over in the course of a unit and their experiences apply to the much more important need of figuring out problems and dealing with situations as they come.

Extrinsic motivators were also found during the study ranging from administrative pressure or administrative support depending on the teacher. Teachers who were new to mindfulness or those who may have not had as much experience or even some younger teachers considered the school-wide initiative to be pressure from administration, for example teacher #4 said, "I feel like there's a lot of pressure to do mindfulness and maybe other classes or other departments aren't doing it, so it feels like there's a lot of pressure on us to do it."

Similarly, teacher #7, also a younger teacher, made a comment about the differences between compliance and commitment, when asked to explain what he meant he responded: "I think compliance could be a negative thing. In all things in life you want to be committed. Whereas compliance you're kind of just following along to make sure you're doing the same things as others." During his last session teacher #7 came back to the concept of compliance versus commitment when asked why he adopted the pedagogy that he chose: "I believe in a past interview we spoke a little bit about compliance and commitment. So the reason that I did adopt the pedagogy would be to be compliant to what our school district wants—the initiative of mindfulness." Teacher #7 felt that as a teacher in the health and physical education department,

he did not feel committed to infusing mindfulness and found that to be one of his own

challenges: "I think it comes down to repetition, practice, and it could be just my overall feeling

of mindfulness going back to the compliance of what the school district is looking for."

However, in another session when asked how he was initially exposed to mindfulness teacher #7

said: "This was something that was recommended to me by my supervisor and just provides me

with the tools to incorporate experiential learning into the classroom."

Teacher #8 got the feeling that as part of his annual evaluation, the administration would

be enforcing the infusion of mindfulness into regular health and physical education

programming: "Our supervisor is checking to make sure that we are incorporating it. I think she's

definitely looking for it any time we're coming in and evaluated. I think administrators are

looking for us to incorporate that in a daily basis." Some of the older teachers remarked that they

felt supported by the school district, in particular by the health and physical education

supervisor: "Our supervisor [is] very supportive and she's asked us to initiate it" (Teacher #2).

Teacher #6 stated similar assumptions that his supervisor was paramount to helping him infuse

mindfulness: "So our supervisor was the one that introduced mindfulness as part of the *Habits of

Mind* and I believe that it was at the beginning of last year sometime; so that was my first true

exposure."

Only in one instance did a teacher feel as though the school district was dragging its feet.

In this instance, teacher #1 was able to attain funding for a yoga and mindfulness room on

campus: "We don't really have the quiet room. But with the money that I have… that's going

towards a quiet room, or a calming room, but we haven't gotten the proper go ahead yet to move

forward with that." When asked why the process was taking some time, she claimed that the

administration kept holding up the process because they were hesitant but did not give her a

reason: "when that got presented to administration they're like 'Well we were still looking into a

few things we don't want to really go too far'." Teachers appreciated being able to pick and

choose among mindfulness practices for their classes based upon the needs of the students within

the class and the classroom culture.

Theme 6: Challenges become motivators. Another aspect of this study that came to light

during the analysis process was that challenges also became motivators—that is whenever a

teacher mentioned a problem, often the result to the problem was examining it from a different

perspective. One of the greatest challenges was support for the program that was mentioned by

every teacher during every session. The sessions gave meaning of the words "buy-in" to

resemble both an acceptance from the students and support from teachers. In the beginning

because teachers reported that students had little acceptance, the role of the teacher was to create

that acceptance by fostering support. Teacher #11 made a comment during one of his sessions

when asked about one of his sessions in his classroom. He stated that "when [the students] get

into a guided-audio they tend not to want to stop, and they always want to do another one." He

was amused at the prospect of stopping short so that mindfulness sessions did not bore the

students, but he found that students rather enjoyed his sessions and requested more time with an

audio-guided mindfulness session, oftentimes completing two guided-meditations within a class

time period.

Teacher #1 felt the opposite, she found that in the physical education course, since

students were required to be active, she did not want to lull her students' bodies into a state of

complete relaxation: "I'm only going to make it five or ten minutes and if I'm doing something

before we do activity I don't want them lying down too long while we're in Phys Ed." When

asked about this in a later session, teacher #1 felt that the male students in her class could not

hold a focus for long. So, because she deemed it difficult to gain their attention with longer bouts

of mindfulness, she was able to shorten her mindfulness sessions to accommodate them and

gradually build in the practice of longer sessions:

> Because they are freshmen and mainly the freshmen boys that just are too rambunctious
>
> to really sit for long periods of time. It's very important for me to find a meditation that I
>
> can keep to no more than 10 minutes. Again, more for the attention span. I think as they
>
> get better at it, as they practice it more, I'd go up to 15 maybe 20 minutes if the class
>
> really engages in the activities but at this point, I have not seen that yet.

Teacher #10 had similar feelings of keeping the sessions short in the beginning to attain

support for the program:

> Well I think it's just enough time for them to give something a shot and buy into it for—
>
> like I said some kids this is not their thing or they're not open to it but you can persuade
>
> them to give it a shot for 10 minutes.

Another challenge was having students sit in silence. Students tended to fidget during

quiet mindfulness sessions and teacher #1 remarked how listening to an audio-guided session

made things easier on both the students and the teachers: "The most successful method is to

make sure that they are constantly hearing something because the silence is what brings them

back to where they are." Teacher #1 also felt that her students listening skills were bolstered due

to the nature of the listening activities that were incorporated, "I would say out of everything we

do, definitely their listening skills are better after doing mindfulness."

Just as with listening, movement became a challenge for one teacher. Teacher #10 found

that when students were not permitted to move, they found themselves restricted and it limited

the number of students he could get to experience a state of mindfulness. To address the

challenge of moving, he decided to incorporate mindfulness activities that used movement and

movement became the motivator: "Some kids can sit still and really handle the meditative type

practices where some need activity, even though it's mindful—this class still needs to be doing

something in order to kind of get that mindfulness state."

Often students were reluctant to accept and support the program because they did not

understand or experience the benefits of mindfulness. When students demonstrated a lack of

knowledge, there was a culture created that fostered curiosity. Teacher #8 stated that: "I think the

biggest barrier is getting students to understand the benefits of it from the start. I think that's the

biggest barrier." Teacher #2 described how she got her students to accept the program by helping

them understand the physiological changes, "You have to describe what the breathing does for

them, why it is important to breathe in the diaphragm not just the chest, how it physiologically

slows down the heart rate--it physiologically allows them to relax."

Still other students maintained their distance as teacher #3 claimed: "Some students just

don't want anything to do with that." When asked why those students felt that way, the teacher

responded:

> They feel that they are fine so they'll continue to be quiet and respectful during it but they
>
> just think that Phys Ed should be a time to actively play as opposed to lying back and
>
> taking five minutes and breathing or we're coloring or exploring different tastes, or smell,
>
> or feel of things, rather than just going out and just playing.

This indicated that students resisted if they had a preconceived notion in their minds if they felt

that physical education was just purely physical activity. Teachers in the school district work

hard to help their students by fostering an open-mindedness about the differences between

physical activity and physical education. Teacher #8 talked about how he continued to push his

students to accept the mindfulness practices because he refused to give in to the student

complaints:

> Sometimes you institute the breathing and you put on the music, right? Teenage kids: "Oh

this is corny! This is stupid." Right? But again I'm just a firm believer, the more you talk

about things, the more that you present things, the more reasons you give for why you do

it--the students start to slowly believe in it, they start to buy into it, and you see it again

manifest itself in such a positive way.

This leads into the idea of building a routine and how it also becomes a challenge for

teachers who are unwilling to infuse mindfulness completely. Teacher #5 said: "I don't think a

lot of students really understood what it was to get that buy-in factor, you kind of have to start to

develop a little bit of a routine with them and get them used to it." Teacher #5 gave further

insight that once that routine was in place, students expected it and thus, it became a part of their

regular programming and they began to see the benefits, "Once it becomes routine it's easier to

get the kids focused on it and to see the benefits of it but also just presenting them with research

and some of the positive aspects of it."

One challenge that was expressed by several teachers that became a motivator was the

need for a curriculum. Originally, the school intended to employ Broderick's (2013) *Learning to*

BREATHE MBSR program throughout the entire school. However, it became difficult to train all

the teachers with the intended curriculum, and instead the school district permitted teachers to

seek out their own mindfulness resources. Teacher #1 felt that because there were no preset

guidelines, "The priority right now, I think, is definitely getting/doing mindfulness on a regular

basis getting into some sort of routine and getting all the Phys Ed teachers on board with it." The

main rationale behind developing a curriculum was the need for consistency as Teacher #4

stated:

The longer amount of time you do between mindfulness sessions the more they forget

about it and the more they're likely not used to it. So, if you just randomly do it like a

month or two after not doing it, they get caught off guard. They're like, "Oh mindfulness

again? I thought we were done with that." So, if you keep doing that, get them used to it

because if they're going to keep doing this throughout high school they need to be on a

consistent schedule.

Teacher #13 expressed similar routines when discussing the consistency of the

mindfulness sessions, as she requires her students to build in mindfulness after the warm-ups and

prior to the start of any instruction: "I just think the consistency of doing it every day like when

we started right in the beginning of school and then it became an expectation."

Teacher #9 went back to the fundamental philosophies of her teaching and said: "I'm sure

there's space for it and room for it. It's just a matter of what is the priority of what we're trying to

do with our students?" She used the example of continuity throughout the curriculum and the

department philosophy by looking at mindfulness with a top-down approach to ensure all staff

are working towards the same mission and goals: "I think we just have to have a common thread

from the top-down to make sure everything's all consistent and we're all pushing in the same

direction for the same things and our priorities are similar." Teacher #9 expanded on her ideas by

bringing the topic of the school mission into the conversation, "I think we're in a place now in

our district where we've just redefined our mission statement and we're clarifying different core

values at the administrative level." She went on to say that: "the word 'wellness' and making

sure our students are in fact living a life of balance and wellness is definitely a district priority."

The school district recently amended their mission statement and priorities to include various

aspects of wellness for the 2018-2019 school year. Teacher #9 continued to echo the sentiments

of the school district:

> I think we have to balance that I think maybe the district needs to step away from some of
>
> the black and white: AP, or the curriculum, or the tests, or assessments and just kind of
>
> allow our students to experience what it means to be balanced and to feel good and safe

and reflective and aware.

Ultimately, teachers are focused on more than just academic achievement and fitness scores in the department. While some teachers were more enthusiastic than others about the prospect of daily mindfulness sessions, Teacher #12 made an emboldened statement when he said: "I want it to be a priority. I think it's essential for the mental health of students. We have students now who are increasingly fragile in nature and in their psychology." He was passionate about being able to develop a routine and have students work on mastering empathy through mindfulness:

> So, to gain an appreciation and empathy through understanding of the impact of mindfulness I think it is my priority for improvement and being able to do it as part of either a daily ritual or you know a couple of times a week is my priority if we can get there.

Theme 7: Various levels of perceived organizational support. Teachers were able to identify various areas where they perceived support either prior to, or during the implementation of a mindfulness-based program. These levels of support either came from student support in the form of student enthusiasm, colleague support in the form of encouragement, supervisory support from direct requests to infusing mindfulness, school level support from various other departments, and district level support from identifying the purpose of the school mission.

Teacher #13 identified an increased level of enthusiasm when she wanted to attend a professional development session and identified it as one of her areas of growth throughout the next school year:

> I went to a training on mindfulness last summer and I'm going to one this year. I definitely think that helped support me in being open to embracing all of these new

activities and seeing/going through some of it myself feeling the benefits from it and knowing that it works so that it would be helpful for the students.

Teacher #1 described the type of support she felt when she met middle school teachers with articulation, "It's helped now that more people are using mindfulness and even the middle schools at our sending districts, when we had our meetings with the middle school teachers and we were going over what we do with mindfulness." This helped her understand the types of training her students are coming into at the high school level, "So a lot of them are coming in now with a background in mindfulness so it does make it a little bit easier and easier sell because they've seen it."

Teacher #1 also spoke to the importance of student support and building a foundation. She described one of the units she taught for ninth graders, mental health, and mentioned that the key to feeling that support was by starting immediately: "When I got the second semester students and we started in the mental health unit and we started right away with mindfulness and I just think laying that foundation from the very beginning and each day talking mental health."

Both teacher #1 and teacher #5 expressed similar levels of the types of support in the school district. Since the department sponsors the mindfulness initiative, all teachers in the department were asked to incorporate mindfulness in some of their lessons, by the time the students saw teacher #5 during their junior and senior years, teacher #5 found it easier to gain that support from the students who had exposure to mindfulness practices from their sophomore or junior years respectively:

> So at least with the sophomores they are seeing a little bit as freshmen and then juniors and seniors are seeing it as freshmen and sophomores. They're beginning to have an idea of the benefits of it but there's also I know our counselors are pushing it and it's not just the Phys Ed classes it's starting to become a trend within the whole school that's making

students a little bit more accepting of it.

Theme 8: Teachers developed higher levels of empathy from teaching mindfulness.

Another aspect that came to light during this study was that teachers developed higher levels of empathy from teaching mindfulness. While every teacher discusses empathy or an ability to "feel for" their students at some point, each teacher expressed empathy as part of their growth as a professional. Teacher #1 said that listening to her students gave her the motivation to continue offering mindfulness instruction: "Listening to the kids talk about how stressed they are. That's really kind of my motivation for making sure."

In addition, teacher #1 strongly identified with being a parent and her ability to see her own children in her students who are also teenagers has made her become a stronger practitioner and teacher of mindfulness:

> I think just as a teacher but also as a mom, I look at the teenagers and I see my own teenage daughter, or son and I see the potential that they have to be good at just being the best that they can be. So, to be healthy to be free of anxiety and to be able to handle their anxiety, to be able to cope with whatever issues they're dealing with, I think that's where I think I've become a better teacher because of my experience as a mother.

When teacher #2 was asked how she has evolved as an educator, she spoke to mindfulness as the element that allowed her to better gauge students in her classes: "It makes you more aware to their specific needs of your students of your classes." Teacher #3 was able to speak more extensively on her evolution: "You tend to be accepting more, listening more, caring more. You tend to be a better person but also a better teacher when it comes to your students because you understand what they're going through."

Teacher #4 was able to speak to the types of issues that students regularly faced. She

demonstrated empathy during the session when she said: "Yeah there's a lot of students that have a lot going on either at home or outside of school." She acknowledged the importance of her role as a school teacher in her students' lives and was able to point to the pressures of being able to handle the issues by themselves: "Maybe they don't know how to handle it on their own or they don't have the time to handle it on their own. So now we give them the chance to do it during the school day." Teacher #5 stated that by practicing mindfulness in her classes, she was able to demonstrate to her students that she cared more about them than scholastic achievement: "It shows the kids that we care more about the whole person rather than just the grades and everything like that."

While teacher #6 is still a relatively new teacher, he expressed that he was able to manage the class better than in the past, however, he did not attribute his classroom management to the mindfulness instruction, "I don't think I have grown in a sense that mindfulness can be contributed to that growth." Instead he was able to discuss the concept of how he became better at being empathetic and understanding because he was required to teach those concepts as part of his mindfulness lessons: "I could say that I'm more empathetic, more understanding, but I like to think that I was that way before and the mindfulness which is just a tool that I can use to show that empathy and teach empathy."

Teacher #8 evolved into a more aware teacher that became highly in-tune with the students in his classes: "I'm a lot more sensitive to it than I used to be in the past of knowing when a student is bothered by something, knowing when the students stressed out about something, just being more aware of each individual student." Teacher #8 was the only teacher who had a special schedule which required him to teach students who were considered at-risk either because of behavioral issues or motivational issues, he continued to note his growth from the mindfulness: "Not to keep harping on it but I think it's made me a lot more aware of my

student's needs." He believed his ability to work with and manage students who could be

considered problematic for other teachers in the building was a result of a deeper empathetic

connection:

> I think it's made me a lot more nurturing for my students, understanding, and still be able
>
> to hold kids accountable but being a lot more understanding to what their needs are and
>
> things that they're going through in their lives. I think that's where it's made the biggest
>
> impact or made me more informed while teaching.

Teacher #9 said that the mindfulness that she's experienced has made her aware of her

students' needs and in turn has made herself more aware of her own needs:

> Just being more in tune with my students, maybe just being more in tune with my own
>
> needs. Like as far as stress levels, I'm really pausing and keeping priorities in alignment
>
> and just I think really just being in the moment as well.

Teacher #9 used similar terminology with teacher #5 and referred to "the whole child"

and the concept that her students were more than just achievement:

> "Maybe it's a sense of caring; students know that you care about them, they're more
>
> committed to the whole journey of that class and that mindfulness does send a strong
>
> message of 'I care about you as a whole child' not just your grade.

Because she was more in tune with her own feelings, she felt that she was able to provide

assistance to her own students since she was given the tools and resources to be able to do so:

> I acknowledge that you're stressed or that you need help in this one area. And I have
>
> resources or tools to help you work through that. So, I think the teachers that do that well,
>
> it is a strong message of caring to the students and I think they respect and appreciate
>
> that, which will carry over into being a little more engaged and onboard with what's
>
> going on in your classroom.

When it came to empathy teacher #10 said, "I think it just opens your mind to the fact that students also need these types of activities. It's not just adults." He went on to say that teaching mindfulness in his classes gave him a different perspective on his students which allowed his students to be more open with him: "By going through as a teacher, you see a lot of students kind of open up in a way that in a typical class you don't always get to see them."

One of the most telling moments of personal growth and introspection came from teacher #11, a teacher with less than three years of full-time experience, he found himself routinely frustrated by students who did not support the mindfulness initiative. Yet when asked about his personal growth as a teacher throughout the year he said: "I think it's helped me realize that some of these students that drive you crazy every day might be dealing with some stuff that makes them act the way that they do." He described his experiences in his classes:

> Kids that come in and just stand there and act like my class is the last place on Earth they want to be, because when they don't like physical activity or they're not into any kind of athletic activities. I don't ever really think that there's something else going on. I think it's always that they're just being lazy. So, it's kind of made me realize that maybe some of these kids are actually struggling with just getting through their day. So making a big stink about them being extra active and participating in class. I've kind of relaxed on that a little bit."

Mindfulness did not completely allow teacher #11 to remain non-judgmental as he still had trouble grasping how students who had issues in their personal lives could not take the mindfulness seriously:

> I think even though I bought into the whole idea of doing it with the students it's just hard for me to still see how much some of these kids actually struggle with stuff. Sometimes it bothers me to see kids who I think and who I know have issues just kind of not taking the

mindfulness as serious as other students who it seems don't necessarily have the same

issues in their lives.

As a veteran educator, teacher #12 was aware of the perception that mindfulness may be

portrayed as insignificant to the non-educator, however, he was able to speak on behalf of those

students who felt the stress and anxiety:

> While outsiders may look at it as something that may be trivial, it is something that's very
>
> real for the individual experiencing it. So being able to understand and look at the anxiety
>
> that these individuals are stressed that these individuals may be experiencing and being
>
> able to look at it and say: "It's real to them. How can we help?" I think it's important.

By the time teacher #12's final session came around, he was able to speak on the topic of

empathy and brought up his graduate work as a source of influence:

> It allows me to become a little bit more empathetic especially after gaining a better
>
> understanding after writing my thesis on mindfulness and gaining an understanding of all
>
> the variety of stressors that these students face at the high school level. I am a lot more
>
> appreciative and empathetic of what these students go through on a day-to-day basis.

As far as how mindfulness has helped him evolve, he too, was able to put himself in the

shoes of his students and gained a better understanding of the present stressors they are dealing

with:

> I think it's allowed me to take a better perspective on the issues that the kids are dealing
>
> with and the baggage that they come into class with. So being able to take a look at how
>
> much stress they're bringing into the classroom and having an idea of some strategies that
>
> we can use to, for lack of a better term, help them leave their baggage at the door.

During teacher #13's second session she had similar things to say about empathy and

constructing an environment where all of her students could feel safe:

I think it shows my students that I'm more empathetic to what they're going through in their lives and showing them that I care about their well-being and so I think that makes it a more like a 'safe place' and more they're willing to let down their guards and be themselves.

The final session with teacher #13 provided some deep reflection on her growth as a teacher. She professed that she did not have an awareness to the emotional atmosphere her students displayed unless they were directly seeking assistance from her.

I mean I think it's made me more empathetic towards the students and the stress that they have. It's not like I didn't know that they had it in the past, it's just that I guess it's not something I was targeting unless an individual student came up to me and was talking with me. So, I think we're putting it out there saying to them like when we brought this in like, "We understand like you guys have a lot on your plate. So, this is something we're going to try that you can use like in your everyday life."

Additional Findings

There were other findings that did not turn out to be major themes in this study. Here they will be addressed as additional findings which may be useful to researchers.

Building reflective practices. Teachers who had more experience in mindfulness also seemed to be those teachers with the greatest insight to offer. Teacher #1 could pull multiple activities and even discuss the science of mindfulness for prolonged periods of time and she was able to give several ways in which almost all of her students could get involved. Teacher #2 also had a number of methods to pull from and she gave some incredible insight into the domain of social and emotional learning which Goleman (2005) agrees with.

In the process of improving pedagogy by immersing one's self in mindfulness practices, teachers may have inadvertently reduced their own feelings of stress and anxiety. Any improvement by way of reduced feelings of stress will allow for greater non-reaction and reflection (Hwang et al., 2017). Teachers who practice mindfulness with their classes to a greater extent also tended to be the teachers that reflected the greatest on their own practices. Teacher #7 has only a few years of experience as an educator; in one interview he was asked what some challenges were and how he responded to them:

> And then like we also just discussed some difficulties are the group in front of me. You know, from what I've observed of them are they into it? Are they buying into it? Or do they turn whatever the activity may be into a joke? Which doesn't happen all the time.

Teacher #12 was a veteran teacher who was able to incorporate mindful practices with his sports teams that he coached, when he was asked the same question he responded:

> I want to see things that work really well for some classes and I have seen some things that worked really well with one class and not with another. And I've taken notes on them and they may be some things I'd change moving forward but then again, you have different classes next year, you have different dynamics next year. So, what worked well for one class this year and what worked/didn't work so well for a class this year may be completely different next year but just being able to have I think for me a variety of strategies. So that way if necessary, you can kind of change on the fly and implement something else quickly.

Mindfulness is related to the practices of reflection in that "it provides an approach to thinking about one's teaching and to addressing one's teaching actions in the field on a moment-by-moment, breath-by-breath basis. It is a phenomenon that is interwoven into all that we do as teachers." (Griggs & Tidwell, 2015, p.88).

Experience garners challenges and resources. Another finding that was evident during the analysis process was the teachers who had greater experience, not just as mindfulness practitioners but also as educators, were not only able to foresee more challenges but were also more resourceful when finding solutions. This is similar to findings in other studies where mindful practitioners have been able to think more flexibly by shifting from a doing mode to a being mode and become open to creative solutions (Willgens & Sharf, 2015). Individuals who work in similar environments benefit from discussing solutions to mutual challenges among work-related issues (Yalom & Leszcz, 2008). Teacher-targeted mindfulness programs such as the Stress Prevention and Mindfulness (SPAM) program developed for educators may also increase opportunities for administrators and staff to work together to troubleshoot issues throughout the school (Reiser et al., 2016). The ability for teachers to find various solutions is a quality of good leadership. From the practice of mindfulness, teachers are able to more effectively regulate emotions and they are able to stay in the present, listen to others, and find flexible solutions (Fonow et al., 2016).

Religion and non-secular concerns were not mentioned by teachers. During the interview process, none of the teachers who were interviewed stated challenges or motivators associated with religion. Some studies have cited religious connotation to be an issue when instituting mindfulness practices (Bohecker, Wathen, Wells, Salazar, & Vereen, 2014). Wisner and Starzec (2016) recommended replacing meditation cushions with chairs and using less regimented walking practices to deemphasize religious perspectives. Providing students with secular mindfulness instruction is important, especially in public schools as instructors want to emphasize the positive benefits without offending anyone because of their religious beliefs (Edwards, 2016). While mindfulness has a deep history and connection with some Buddhist and Hindu religious practices, practitioners have made distinctions between religious practices and

spiritual practices; spiritual experience is one of the keys to wellbeing (Mars & Oliver, 2016).

It is useful to note that this study took place during the first year of implementation and various teachers may have been trying to hone their skills during this process. While the health and physical education department in the high school has 21 teachers on staff (including the researcher) only 13 teachers participated in this study. Other teachers either did not respond to requests or they chose not to participate for undisclosed reasons. During the 2017-2018 school year, three teachers were also out on maternity leave which left only 17 regular full-time staff available.

While this study incorporated interviews from various teachers, it did not include the most important stakeholder: the students. Parental consent is difficult to obtain, especially when it comes to the issue of student well-being. However, the interviews were beneficial for the purposes of providing insight into a school district that is looking to make some positive changes. Another limitation is that not all teachers went through the same trainings. All teachers went through the mandatory one-day training which included presentations from mindfulness practitioners from a local tertiary institution. However, others who may have been more passionate for various reasons may have felt compelled to go to other trainings, professional conferences, and workshops. While this is not a controlled experiment, the types of responses elicited from staff members fluctuated based off their experiences.

During this study, the researcher was able to gather substantial data in the form of interviews, while observations, were limited in scope to some teachers who taught additional mindfulness sessions or went back through their lesson plans to re-teach a mindfulness plan that they had previously taught because of a request from the researcher. Data gathered from

observations did not track student behaviors, moods, or responses. At the time of this proposed

study, only IRB approval was granted for the observations of teacher behaviors and statements.

Discussion

The purpose of this study was to examine the mechanisms of infusing mindfulness-based interventions and MBSR practices into teachers' pedagogy and gain insight into their lived experiences. The three research questions allowed eight themes to reveal themselves. The qualitative analysis focuses on the eight themes that came to light in the narratives of the teachers interviewed. In many cases themes were connected and included relevant concepts such as pedagogical practice, motivators that were responsible for implementation of mindfulness, and implementation experiences that were related to both the teachers personal mindfulness practice and classroom mindfulness experiences. Individual quotes from teachers are used to illustrate the key concepts and themes.

These eight themes will now be discussed in greater depth. To answer the first research question: *What content do teachers use when teaching mindfulness?* the themes of: (1) mindfully selecting content on class climate and individualizing instruction, and (2) teachers' personal history and practice with mindfulness influence both ability and perceived support came to light. The second research question: *What mindfulness methods of delivery, length and frequency of delivery do these teachers use?* addressed the mindfulness methods of delivery by: (3) the variable implementation experience, and (4) the simple act of modeling behavior for students and other staff members. The final research question on the impact of teaching: *How have mindfulness-based interventions (MBIs) impacted your teaching?* is answered by: (5) intrinsic and extrinsic motivational factors, (6) the idea that challenges could somehow become motivators enabling teachers to seek out better solutions, (7) various levels of perceived organizational support, and (8) the perceived increases in empathy and understanding from teachers regarding student needs.

Theme 1: The Mindful Selection of Content and Pedagogy

Employing mindfulness in the classroom is a powerful tool as it allows educators to connect with their own thoughts about teaching. In working with undergraduate science education majors, Powietrzyńska and Gangji (2016) interviewed two future science educators who were able to include mindfulness practices as part of their undergraduate training; one of the undergraduates acknowledged that teaching difficult content could bring anxieties to children and upon reflecting, found that being mindful of the audience and understanding that education had a human element was critical prior to developing curricula and syllabi.

When implementing whole school supports for mindfulness interventions, researchers indicated using a three-tier method in which tier 1 supports included universal prevention programs that could potentially target all students, tier 2 supports included providing specialized programs to students who needed supplemental or targeted instruction, and tier 3 supports were aimed at the few students who had the most severe needs and required intensive individualized mindfulness instruction (Stuart, Collins, Tomas, & Gwalla-Ogisi, 2017).

When educators assign mindfulness tasks and exercises to their students, research supports a system of assigning tasks to individuals who shown favorability to similar content and practices (Schueller, 2010). Wilson (2012) suggests that "giving students a choice in what they read can make it easier to teach them how to create mental imagery; they are more likely to be engaged in and derive meaning from reading they enjoy." (p.192). She adds that teachers need to be able to ask students what interests them and find out the things that students enjoy—if teachers can personify then they may personalize.

Theme 2: Fostering a Personal Mindfulness Practice

For facilitators to succeed in training mindfulness to their students, they must develop a personal practice (Saltzman, 2016). Developing a personal practice prior to facilitating a mindfulness session is imperative not just for teachers, but also other practitioners within the educational context (Campbell & Christopher, 2012). "Lacking in specific awareness leads to habitual or automatic behaviors." (Ruffault, Bernier, Juge, & Fournier, 2016, p.450). Whitesman and Mash (2016) go a step further by saying that mindfulness-based instructors have unique expectations placed upon them, particularly in clinical settings, therefore beyond regular intensive training, the mindfulness-based instructor needs to be well-versed in personal mindful meditation practices.

It is critical to be properly trained to be able to work with others who have little or no prior knowledge in order to provide a complete experience of mindfulness practice. Schien (2017) recommends that when constituents within an organization learn new information during a change process, formal training and resources should be provided. An example of this is the *Resilient Kids* program, originally developed as an after-school program; it was modeled off the five competencies of the Collaborative for Academic, Social, and Emotional Learning (CASEL) program: self-awareness, self-management, social awareness, responsible decision-making, and relationship building—all classroom instructors are required to go through instructor training and have their own personal mindfulness practices (Semple, Droutman, & Reid, 2017). "Teacher development in MBSR and MBCT, for example, is weighted towards development of the teacher's personal practice and transformation of her way of being, because the teacher's presence is deemed central to how the class learns." (McCown, Reibel, & Micozzi, 2010, p.27).

Some teachers indicated increased levels of stress and pressure from outside influences such as administrators, other colleagues, increased expectations to accommodate students with

special needs, and even students themselves who may have presented meta-stressful (stressed

about being stressed). Developing a personal mindful practice can be particularly useful when

working in a high-stress profession such as teaching as one systematic review of qualitative

studies found that mindfulness can be a coping mechanism to help teachers manage difficult

emotions and resolve conflict (Hwang, Bartlett, Greben, & Hand, 2017, p.39). "Like other

demanding professions, teachers deserve and need methods of maintaining good executive

function in the context of their elevated work-related stress." (Meiklejohn et al., 2012, p.293).

In several schools, professional development may be completed in an online format.

These professional development sessions may also include basic training and foundations of

mindfulness, including definitions, and helping one engage in personal mindfulness practice

prior to implementing it with students. In one study, online training took place using the *Mindful

Schools* program which lasted six weeks and required teachers to incorporate a consistent

mindfulness practice that had a reflective component; while advanced training required an in-

person two-day workshop in which participants practiced teaching mindfulness to other

participants (Kielty, Gilligan, & Staton, 2017, p.131).

Hwang et al. (2017) argue that the relationship teachers have with their own bodies

constitutes an area of importance in mindfulness practice because of the recognition of their own

stress levels in their bodies, becoming aware of physical tension release such as rolling one's

shoulders, and the ability to ground themselves when they feel overwhelmed at work by

incorporating body scans or anchoring their breathing.

Researchers in Australia working with disadvantaged youth found that being proficient in

a personal practice was essential being both credible and being able to teach these skills on the

job:

"One common thread, reported through multiple interviews, was the importance of staff members both believing in the usefulness of the skills and applying them in their lives outside of work. These two factors were reported as improving their credibility to train, mentor, and coach young people and thereby increasing the willingness of young people to listen and engage with the teaching." (Raymond, Iasiello, Jarden, & Kelly, 2018, p.241).

It was evident that teachers who practiced mindfulness on their personal time, even if it was only a beginning practice, had greater ability to articulate the concepts, the science, and were better prepared to practice their mindfulness pedagogy on their students. They were also much more likely to have a positive outlook and view support for the initiative from their students and other colleagues, and they were able to see opportunities with the program where others may have seen issues. Crane et al. (2012) discuss this concept as the ability to "embody" practices and indicates this as a differentiator when implementing mindfulness-based instruction:

"Woven across all these processes is the capacity of the teacher to teach everything through an embodiment of the qualities of mindfulness. 'Embodiment of process' by the teacher is the feature of the approach which differentiates it from other approaches and is therefore illustrative of the particularities which need consideration in developing a mindfulness-based teaching competence framework." (p.80).

Educators from all walks of life are continually faced with increasing levels of stress and their jobs require a tremendous amount of flexibly and responsiveness, considering the mounting evidence of the damages of toxic stress it would be beneficial for teachers to engage in simple mindful awareness activities (Meiklejohn, 2012). Doing so would not only provide ample modelling for students, but also provide teachers a natural means to cope with the increasing demands and expectations placed on teachers.

Theme 3: A Wide Spectrum of Experiences

Teacher experience can often be an effective factor on the outcomes of mindfulness programming as Zenner, Herrnleben-Kurz, and Walach (2014) found that "the instructors' qualifications and their personal experience with mindfulness are surely important" (p.17). McCown et al. (2010) outlined a continuum of mindfulness instruction where teachers would find themselves basing their teaching practices on their personal practices (see *Figure 16*). A teacher's personal commitment to mindfulness may be purely existential in nature or he or she may need to learn about mindfulness in conjunction with a goal. McCown et al. (2010) indicate that the training for mindfulness may be on a continuum with one teacher who may be highly trained with a deep personal practice of mindfulness on one end of the continuum and another teacher as someone with high levels of training in theory, skills, and mindfulness techniques on the other end. Both the person's own personal philosophy and the person's training will coincide with the question asked, whether it is about deep practice or deep understanding.

The Person	Existential commitment transforms self and others	Professional with common-factor mindfulness
The Training	Highly trained and deeply practices in mindfulness	Highly training in theory, skills, and techniques of intervention
The Question	"Is my practice deep enough?"	"Is my understanding right?"
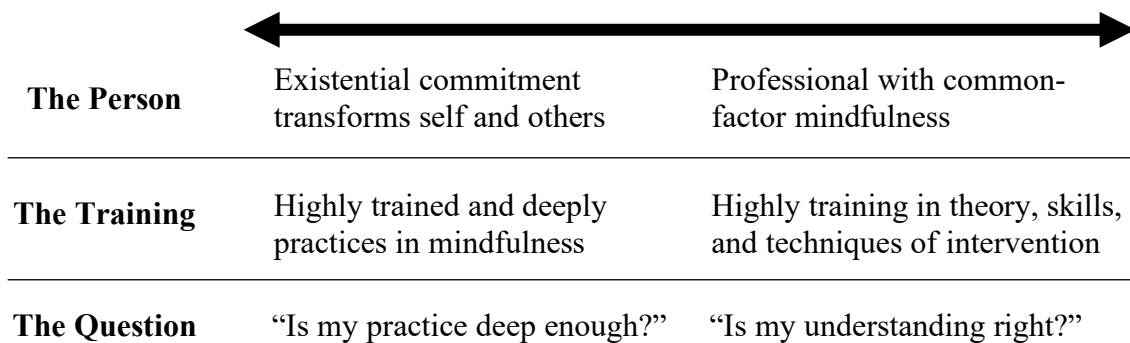
Figure 16: Continuum of the who of teaching mindfulness as a professional (McCown et al., 2010)

Materials and activities should be relevant and useful to the learners, connected to their interests, and based on real world tasks (Pintrich, 2003). According to Ergas (2014), there are

two prevailing agendas that seem to exist among practitioners for mindfulness. The first

identifies mindfulness-curricula as achievement- and performance-based; therefore, educators

place mindfulness into their curricula with the intention of bettering educational outcomes of

their students. The second identifies mindfulness as a contemplative inquiry and outcome goals

remain secondary to the experience that mindfulness may provide students, this agenda is more

closely related to the Buddhist teachings of non-striving. Ergas (2014) stated that these two

agendas seem as though they are on opposing ends of a dichotomy, however, they need not be

mutually exclusive, i.e., educators can still achieve the outcomes they wish while gently guiding

their students through an experience.

Experiences may be the result of training or personal practice and while each individual

may achieve something different from their own experiences in mindfulness, training should

support the teachers by filling in the knowledge gaps. Furlager (2018) argues that training should

provide three key foundations to those seeking to train others in positive psychosocial behavior:

(1) empower teachers to be change-agents, (2) enable teachers to support safe school

environments with the requisite knowledge and skills, and (3) become advocates by helping

others become aware of positive psychosocial methods as needs in adult and children increase.

School district physical education and health teachers came with a wide variety of

experiences, training, and personal reasons when they incorporated mindfulness training in their

classes. Some teachers were more aware of their own limitations and indicated they looked

forward to learning more either from colleagues, through additional training, from reading books

and other literature on mindfulness, or from an informal support system such as the mindfulness

committee. Teachers who possessed more knowledge either in educational or mindfulness

theory, practical experience with mindfulness, or pedagogical experience reported greater self-

efficacy with the mindfulness initiative and were more likely to view their roles as change-agents.

Theme 4: Modeling Behavior

Mindfulness awareness practices may be helpful for teachers as they take on the challenges of running a classroom (Jennings et al., 2017). According to an analysis of over 250 different instructional methods, one of the greatest predictors of student performance is teacher self-efficacy—the understanding and the belief a teacher has that he or she is capable of teaching particular content (Hattie, 2017). Among educators, feedback and modeling increases self-efficacy (Pajares, 2003). By modeling behavior for other teachers or seeking out teachers who were exemplars of mindful pedagogy, teachers were able to scaffold their own practice by simply watching the successful practices of others. Facilitators are crucial in many fields, however, in one study participants described the role of facilitators as "essential" and "their execution of the role as 'inspiring'." (Shonin, Van Gordon, & Griffiths, 2014, p.856). Models who are credible and similar (gender, culturally appropriate) can foster positive values (Pajares, 2003). Teachers indicated that learning from other teachers was a major source of their knowledge throughout the mindfulness initiative. This relationship could be seen as a mentor/trainee relationship in some cases, especially between veteran and newer teachers. Literature on mentoring in education suggests a growing importance on mentorships because of the inverse relationship between increasing experienced teacher attrition and decreasing educational attainment (Paris, 2013).

The importance of credibility in mindfulness practice is inherent in the process. Because mindfulness practice involves experiential and conceptual components, educators who do not have their own practices need to invite guests into their classrooms who can confirm the

importance and relevance of the practice (Wells, 2013). "Guests to the classrooms could provide this authentic experience for students. The teachers involved in the MBSR programs practice meditation along with the patients in the programs." (Wells, 2013, p.4). When instructors model mindfulness to their students, researchers have found that the aspect of modeling itself takes the pressure off the participant by reducing expectation and enables the process of self-discovery (Hopkins & Proeve, 2013), there is no reason why this phenomenon would not be prevalent among staff members who model pedagogical practices for each other. Mentor teachers may also model behavior for their mentee teachers.

Empirical research has also found support for a *Head Start* model where preschool teachers received training and weekly mentoring support to develop improvements in emotional supportiveness (Jennings et al., 2017). This study found that teachers felt a prolific urge to model mindfulness for students and other staff members. Ideally, teachers were able to share practices with one another and facilitate dialog through departmental meetings, professional learning communities (PLCs), informal observations, coteaching opportunities, and casual discussion. The more teachers observed others performing mindfulness with their classes and differentiating for individual students, the more teachers felt a need to implement mindfulness in their own teaching practice and develop a repertoire of activities for students with gifted and special needs.

Theme 5: The Intrinsic/Extrinsic Motivational Connection

The connection between intrinsic motivation and well-being (Ryan & Deci, 2000), mindfulness and motivation (Brown & Ryan, 2003), and mindfulness and intrinsic motivation on the effects of physical activity (Ruffault et al., 2016) have been well-studied and documented. Teacher stress levels often play a role in the effectiveness of teaching a class (Jennings et al.,

2017) and experiencing negative emotions can have a negative effect on teacher's intrinsic

motivation and self-efficacy (Sutton & Wheatley, 2003). "School related tasks require the ability

to use and regulate emotions in order to increase concentration, develop intrinsic motivation, and

control impulsive thinking and hostility." (Franco, Amutio, López-González, Oriol, & Martínez-

Taboada, 2016, p. 2). Ryan and Deci (2000) found that the level of autonomy an individual

experience was both theoretically and empirically linked to motivational levels. Other research

on motivation indicates that high self-efficacy can positively influence motivation (Pajares,

2003), and learning and motivation are enhanced if the learner values the task (Eccles & Harold,

1991). Empirical research has demonstrated that mindfulness practice may increase as intrinsic

motivation rises, the opposite is also true—as mindful individuals are more likely to be

intrinsically motivated (Ruffault et al., 2016).

Pink (2009) claims that intrinsic motivation is more powerful than extrinsic motivation

because reward systems lose their effectiveness after a period of time. What is more problematic

is that once reward systems are removed, motivational levels rapidly decline. He expands on this

idea of increasing one's "drive" by fostering three elements of intrinsic motivation: (1) providing

purpose, (2) giving an individual or group of people autonomy, and (3) providing an opportunity

for mastery. Similarly, Raymond et al. (2018) found that program sustainability was more likely

to me obtained "if staff: (1) used the skills in their own life, (2) thought they had gained more

tools for working with young people, and (3) enjoyed their work roles to a higher degree."

(Raymond et al., 2018, p.241).

The school district teachers who were extrinsically motivated either by pressure from

administration or from peer pressure were less likely to find mindfulness practices appealing and

were less likely to articulate their practices in ways that included practical evidence, cite

scientific theory, or acknowledge instances in which they may have made progress in student

health and well-being. Teachers who were intrinsically motivated however, were more likely to

view breakthroughs with hard-to-reach students, provide evidence in the form of written journal

reflections, recall captivating stories of overcoming challenging logistical situations, or were

more reflective and articulate in their own understanding of mindfulness theory and practice.

These teachers were motivated by one, or a combination, of Pink's (2009) intrinsic motivation

criteria. Stronger teachers did not necessarily have more experience teaching, although

pedagogical experience was considered helpful; younger teachers tended to struggle more with

classroom management even though they may have demonstrated more passion in infusing

mindfulness throughout the initiative. Impassioned teachers felt as though they had a greater

purpose than just teaching curriculum or getting students to move, they also felt that they had the

freedom to choose whichever resources and methods worked best for their classes and individual

students at a particular moment in time, and they all felt that they could master mindfulness and

become proficient in understanding the basic concepts.

One element of intrinsic motivation was the opportunity to master the methods or content

of mindfulness. Teachers particularly enjoyed seeing students grow throughout their sessions and

in some cases these teachers were able to view a noticeable difference in their students in one

session as teacher #6 commented:

I just like when the students are really into the session and they're really listening to the

audio and they stand up very slowly and you can tell that they're more aware of their

surroundings and they were calm and they were focused, they're present in the moment.

In a different session when asked what he thought the benefits of mindfulness were,

teacher #6 used the idea of students learning to let go and to appreciate the environment around

them:

The benefits are that the students can learn how to let go of what's stressing them out and

what's bothering them or what's not going great in life and they can be present and also
not just focus on themselves, learn to focus on others and to be good listeners and to be
more appreciative of life and their surroundings and what's really going on is what really
matters.

Teacher #1 felt that providing her students with the opportunity to help students
experience what she felt herself when she experienced the clarity that mindfulness brought to her
was an intrinsic drive to help her continue to push it in her class: "For them to get the same
benefits that I get, like to understand it's going to help clear your mind. It's going to help you stay
focused and make the right decisions and not just be reactive to situations." This is in line with
the concept of "stress contagion" as teachers with exceedingly high levels of stress and anxiety
could imprint these feelings directly to students (Wethington, 2000, p.234).

Theme 6: Building Resilient Teachers

The sixth theme demonstrated that as teachers practiced facilitating mindfulness to their
students, teachers became more mindful and were exposed to various challenges that they were
motivated to overcome. When students showed a lack of support for the initiatives, teachers rose
to the challenge in several creative ways either by offering a variety of activities, explaining the
benefits, discussing the theoretical concepts, or allowing autonomy by offering choices to their
students. Support for program implementation has been well-documented. In one study, athletes
exposed to Mindfulness Meditation Training for Sport (MMTS) rated their mindfulness sessions
higher if they were exposed to prior knowledge about meditation before mindfulness sessions
occurred allowing student-athletes to "buy-in" by connecting meditation with athletic
performance (Worthen & Luiselli, 2016). Similarly, in this study teachers who had a stronger

conceptual understanding of mindfulness reportedly found fewer challenges and greater opportunities with student and coworker support.

The ability for teachers to tackle challenges head-on exemplifies the quality of resilience. Resilience and mindfulness are both related to each other as they fall under the umbrella of positive psychology. The concept of teacher resilience can be defined as a quality of maintaining commitment to teaching practice despite challenging conditions and recurring difficulties (Brunetti, 2006). Studies have demonstrated the positive aspects of resilient teachers and how they may attain greater positive outcomes from students than those who are less resilient and committed (Day, 2008). Mindfulness and resilience are linked due to the connection between self-regulation, emotions, and behavior—mindful individuals are more capable of changing behavior and thinking positively than those who are less mindful (Levesque & Brown, 2007). Although some teachers did not report personally practicing mindfulness, it was clear that teachers expressed elevated resilience from working with class management issues, last-minute changes to space availability, flexibility regarding content, and working with students who may have felt uncomfortable initially. Meiklejohn et al. (2012) stated that:

> "Short but regular formal mindfulness training exercises, combined with informal mindfulness awareness practices, can strengthen their innate capacities for being mindful, and therefore their capacities to relate to any experience—whether pleasurable, neutral, stressful, or difficult in ways that are responsive rather than reactive and reflexive. (p.297).

Numerous teachers cited that self-guided meditation was difficult for the students and teachers often defaulted to using audio-guided or technology-guided mindfulness practices such as guided-meditations, audio-guided body scans, progressive relaxations, or audio-guided visualizations. As a result, teachers who attempted self-guided meditations or teacher-guided

mediations became aware that in order to become stronger at teaching self-guided meditation, they needed to persist in teaching the students about brain-based learning and encourage students to try what worked for them. This is similar to the reports from Hopkins and Proeve (2013) that found: "adapting to meditation shows that participants overcame meditation practice difficulties in a number of ways, including practicing for less time, choosing a favorite practice, or occasionally allowing themselves to avoid practice." (p.124).

One major challenge which tested the resilience of teachers was the logistical component. Teachers reported frustration when faced with limited space, loud noises, or insufficient resources. While resource constraints can pose as barriers to student engagement, especially in underserved urban schools (Dariotis et al., 2017), the school district is resource-rich and it was still a challenge for teachers to find quiet spaces free from distractions. Teachers who were interviewed welcomed the challenge and made light of their position, many even claimed that it was the students who made their jobs easier and worthwhile.

Langer (2014) provides an interesting perspective on mindfulness because her research leads her to view both mindfulness and mindlessness as the ability to make change, be proactive, and take control: "Some have found it easier to take risks and to welcome change, or have felt less fearful of failure, others have felt control where they once felt helpless, or freer where they once felt confined" (p.8). Interestingly, although teachers were faced with various challenges and in one teacher's case (#8) working with at-risk, emotionally disturbed population, they all managed to find the silver lining and spoke with the belief that if things did not improve, somehow, they would manage to find improvement from the choices they make and the action they take.

Theme 7: Examining Organizational Support

Parsons (1956) inferred that there was one distinct differentiator between an organization and a community; while they are both a gathering of individuals, the former works together to achieve a common purpose while the latter does not. Ledoux, Forchuk, Higgins, and Rudnick (2018) state that there are three types of organizational-level catalysts which have proven to be positive predictors of compassion among healthcare providers: (1) structural empowerment, (2) psychological empowerment, and (3) interprofessional collaboration. Various support from all organizational levels are important; Reiser, Murphy and McCarthy (2016) stated that in order to foster elevated levels of support, open lines of communication with higher level school staff are vital in planning and addressing logistic concerns. "Program implementation at a classroom, grade, or whole-school level likely creates a shift in school climate more broadly, facilitating administrative and teacher engagement." (Dariotis et al., 2017, p.67). Supportive team cultures among healthcare providers boosted self-confidence and compassion while negative organizational factors stemming from a lack of supportive leadership led to increases in healthcare provider apathy (Ledoux et al., 2018). Reiser et al. (2016) uses the term "member buy-in" (p.132) and cites an example of a principal soliciting a teacher to join mindfulness training sessions.

Specific factors such as teaching along with colleagues, having administrative support, parental support, and increased student enthusiasm may increase the chances of successful implementation (Joyce, Etty-Leal, Zazryn, & Hamilton, 2010). "Multiple organizational factors come together to form a school's overall organizational health." (Ouellette et al., 2018, p.495). In an evaluation of four place-based education programs, Powers (2004) found four strengths that effective programs had in common: (1) a start-up approach that was effective, (2) calculable teacher, administrative, and community support, (3) partnerships with other existing stakeholders, and (4) ongoing communication. Overall, support for a school-based initiative is

critical to sustainability especially from the key stakeholders of teachers, parents, school counselors, and administrators.

Promoting mindfulness practices in school proved to be a challenge because of the limitations that are imposed on individual employees—to make a well-meaning, much-needed impact on well-being, ownership from various organizational levels may need to occur (Moen et al., 2016). A mutual agreement between administrators and staff must exist as difficulties can arise when mandating that teachers spend excessive time from implementation and effectively highlighting program involvement (Dariotis et al., 2017). Employees are much more likely to feel supported individually if they have the sense that their best interests, particularly when it comes to well-being, are enhanced within the larger organizational goals (Bostock, Crosswell, Prather, & Steptoe, 2018). "In addition, evidence of an organizational commitment to learning, improving systems of professional practice, innovation, stable management, and staff groups were also considered important, as was a willingness to co-invest in the program. (Raymond et al., 2018, p.233). Falb and Pargament (2012) indicated support for mindfulness programming must be linked to real social situations.

Another aspect of school-wide support is held in the ideal that individual goals should be in line with organization goals for maximum effectiveness (Himmetoglu, Aydug, & Terzi, 2018). Teachers who viewed their positions primarily as health practitioners and secondarily as teachers reported stronger practices and greater support from the school-district. Those who viewed their roles as physical education teachers demonstrated disappointment with some aspects of mindfulness and struggled with aligning themselves to the school's vision and strategic plan. Eva and Thayer (2017) state that while formal mindfulness courses for individual teachers may not be required to obtain benefits in personal and professional lives, there are nonetheless evidence-based training programs which enable teachers to feel supported in the development of

mindfulness-based interventions when considering the school culture and environment.

Klockner (2017) suggests there are two actions to building a resilient organization: (1) "organizational mindfulness", in which the organization becomes mindful of its mission, its actions, and its vision; and (2) "mindful organizing" in which the stakeholders in the organization, particularly the decision-makers, deliberately work to ensure that attention is directed at: (i) preoccupation with failure, (ii) reluctance to simplify, (iii) sensitivity to operations, (iv) commitment to resilience, and (v) deference to expertise. Administrators need to be aware of "organizational mindfulness" as simply expecting teachers to put mindfulness programming by piecemealing several different activities does not constitute a curriculum. With each teacher owning a variety of strengths, it is important to structure teacher schedules, duties, professional development communities, and departmental meetings so that the organization may be put in a position to operate at optimal effectiveness.

Because teachers were able to view certain levels of support differently than others, they may have had an easier transition turnkeying the mindfulness initiative within the school district. Previous research highlights the value of whole-school programming and how they increase the chances of success (Naylor & McKay, 2009). Studies that examined teacher reports of self-efficacy and classroom-level functioning, when correlated with school-level organizational health, indicate lower levels of stress and highest levels of teacher satisfaction: "findings point to organizational climate and teacher connectedness as potential levers for change, supporting prior work on teacher stress and satisfaction in schools. The significance of targeting organizational factors may be particularly significant in urban school districts." (Ouellette et al., 2018, p.494). Group problem solving and whole-group support contribute to enhanced learning and normalization (Hopkins & Proeve, 2013).

Theme 8: Developing Empathy

Both mindfulness and empathy are central to teaching because they encompass the senses of seeing and feeling. Goleman (2005) refers to what teachers experienced in this study as emotional intelligence (E.I.) and empathy falls under the umbrella of E.I. Foody and Samara (2018) found that schools that implement mindfulness-based techniques often lower the number of reported bullying incidents because victims develop resilience, onlookers develop positive bystander behavior, and bullies develop perspective. E.I. development from mindfulness interventions is not solely linked to children and adolescents however as empathy is a word often used in educational circles; Howard (2006) mentions how empathy is necessary for teachers to navigate the "river of change" when teaching in an environment they do not identify with (p. 69). "Empathy or the ability to understand the perspectives of others who do not share one's point of view is crucial to transformational leadership." (Fonow, Cook, Goldsand, & Burke-Miller, 2016, p.120). Teachers are leaders of their classrooms, and often good teachers are recognized by their ability to positively influence student achievement and well-being. Findings from Goleman (2005) indicate that good leaders have a high degree of emotional intelligence. Even administrators would benefit from mindfulness as Thompson (2018) states: "Administrators are pressed to use their emotional intelligence to listen, empathize and respond to issues that often have no "right" answer" (p.31).

An earlier controlled study indicated that clinicians providing therapy were protected from empathy erosion by significantly increasing their ability to detect and feel another individual's emotions through mindfulness training (Lesh, 1970). Ensuring that teachers continue to empathize not only for their students, but also for their colleagues is a trait worth building and sustaining because not only does empathy play a role in effective teaching, but so does compassion. Epstein (2017) stated that compassion is a triad of elements which must coincide

before compassion takes place: (1) having the ability to notice another person's suffering, (2) resonating with their suffering in some way, and (3) acting on behalf of that person. One of Kabat-Zinn's (2013) elements of mindfulness is "acceptance", for us to be able to accept others we must be willing to show compassion. Eastern philosophy guides through this idea that empathizing by experiencing one's pain is a demonstration of compassion: "In this way, mindfulness can show us, as the Buddha taught, that every human being suffers; the Other, like myself, suffers. It is this insight that can give us compassion for the Other." (Lu, Tito, & Kentel, 2009, p.363). Being in tune with our own emotions allows us to be in tune with others' emotions (Fukuskima, Terasawa, & Umeda, 2011). While there are various forms of mindfulness practice, meditation has been linked to compassion because: "sitting in meditation provides repeated opportunities in handling negative thoughts, unpleasant feelings, and difficult sensations that lead to development of compassion." (Gates & Gilbert, 2016, p.256)

Previous research has demonstrated that in addition to empathy, mindfulness can foster other therapeutic qualities such as attention, cognitive flexibility, self-awareness, and responsiveness which are all elements that teachers need to be able to reach every student (Fulton, 2005; Gehart & McCollum, 2008; Napoli & Bonifas, 2011). "Training attention also enables the deliberate cultivation of positive qualities through specific practices designed to promote empathy and prosocial attitudes." (Flook et al., 2013, p.183).

This eighth theme is one of the most significant of this study because "empathy" was a concept that all teachers managed to speak about. They either directly used the word and stated that they were able to build it. While some teachers chose to facilitate mindfulness sessions through teacher-centered instruction, other teachers provided opportunity for their students to facilitate through student-centered instruction. Regardless if the teacher led or followed, throughout interviews and from observations it was evident that teachers seemed to be more

attuned to the needs of their classrooms and the needs of their individual students. Many teachers

explained that this connection grew throughout the initiative—this connection could also be from

building rapport with students throughout the course of the semester since teachers would have

seen their students more frequently, however, this connection was highly articulated in

conversations with teachers who practiced mindfulness with their classes multiple times per

week than those who sporadically infused the practice from time-to-time.

Essence of Mindfulness in Education

Examining the experiences of educators experiencing mindfulness in their classes has

yielded a plethora of data. During the preliminary stages of a mindfulness initiative in a school

district, three questions were answered regarding these lived experiences and they have been

illustrated in *Figure 17* and they can be summed as: mindful teachers in the school district seek

content that is general and try to individualize it by environment or student needs; once this

content is deemed appropriate, the teachers refine their delivery and provide the element of

choice to their students. In the process the teacher looks at each challenge and works to create a

strategy that will create support for the program and in turn evolves as an educator. Throughout

the process, the teachers are reflective, passionate about quality rather than other metrics such as

student achievement or test scores, they seek to provide a better experience to their students with

every class and they evolve into more empathetic educators and begin to explore their own

strengths when seeking out new content for future sessions.

Seeks out **content** that can be *individualized* based on environment, event, or student needs.

The Mindful Educator

Teacher is reflective and develops empathy for students, other teachers, and the process.

Teacher examines materials to determine appropriateness.

Evolves as a professional either by *gaining* more knowledge and/or expertise through *self practice.*

Works at *refining* **delivery** to a group of students and provides *choice.*

Teacher garners support of initiatives by being open and accepting of challenges

Figure 17: The essence of a mindful educator

Conclusion

Teachers care very deeply about the quality of their instruction, so much so that they often may feel as though their mindfulness sessions pale in comparison to their regular sport, physiology, or health science pedagogy. The teachers in this study came from a variety of backgrounds and each had their own reasons for participating in this study. Some said that engaging with discussions with the researcher was reflective and challenged them to think about their current practices and what constitutes a "best practice" in the realm of mindfulness.

This study found that more than caring about personal practice and self-improvement, teachers felt as though they were a critical checkpoint in the lives of their students as they transitioned from late puberty into early adulthood. Teachers solicited feedback from students and often engaged in both formal and informal assessment hoping to adjust their mindfulness practices for their next sessions. Younger teachers, while still early in their careers held onto the importance of their own roles in their own students' lives and believed that the role of the educational practitioner and health practitioner were no longer mutually exclusive. When teachers expressed dissatisfaction throughout their interviews, they were not expressing dissent at the system, but rather how they felt as though they could not help their students enough, and that they hoped for more knowledge, more training, and in many cases a frustration with the limited time they had available to their students. It was as if these teachers felt as though mindfulness practice made them acutely aware of the challenges their students faced daily, and at the same time, made them mindfully aware of their own limitations.

These findings provide some suggestions for school districts, particularly districts employing new mindfulness initiatives at the high-school level. The primary concern for educators is the use of common language. Some teachers often referred to mindfulness as "stress management" or "social-emotional learning". Mindfulness can fall under both broad categories because they each employ a different set of strategies. Mindfulness is unique in the sense that there are specific strategies associated with it; by having common language, teachers will be able

to articulate needs and expectations throughout disciplines and across grade levels. This provides a starting point when formulating or adopting a curriculum.

Even though there are numerous ways to teach mindfulness as there are numerous ways to teach fitness, the fitness industry is significantly further in terms of providing a accreditation system enabling consumers to be properly informed on issues like trainer qualification, professional development, and the scope of professional fitness practice. It should be a priority for wellness practitioners to urge certifying agencies to come together and put forth a set of competencies for mindfulness instructors.

Another aspect of mindfulness is that it is not a one-size-fits-all modality. Teachers are acutely aware that each class has its own personality (some teachers deem it a "culture") and within those classes there are individual students who have different needs. Teachers who look to not only differentiate instruction across groups, but also individualize instruction on a case-by-case basis are more likely to find students accept their mindfulness instruction. Different strategies work better for various populations, yoga may work better for some of the more active students, while journaling and mindful coloring may work better with the more reflective students.

This study also provided some insight into the training of individual teachers. Teachers who were personally affected in their lives or those who had something to gain from exposure to mindfulness-based practices such as increased performance, lower levels of stress, personal family issues that resulted in the adoption of mindful programs at home—those teachers seemingly went on to find further resources either in the form of a professional development course, a continuing education graduate course, or through professional organizations.

Teacher training and personal practice are of vital importance when implementing a mindfulness-based intervention within a school district. Without the combination of personal

mindfulness practice and pedagogical applicability, teachers will have difficulty communicating expectations, critiquing curricula, and modeling mindfulness pedagogy to other educators within the school community. Teachers' understanding and application of mindful practices is that they can be incorporated anywhere throughout the school district from individual classrooms, to sports teams, as part of a unit, as an at-home assignment, from entering ninth graders to seniors ready for graduation. While individual practices, facilitation, and acceptance may differ from teacher to teacher the goal is genuinely the same, educators come from a place of caring and kindness and they want to see their students thrive beyond the four walls of the classroom (or gymnasium). Standard and consistent teacher training and personal practice are of vital importance when implementing a mindfulness-based intervention within a school district.

Schools are capable of becoming incubators for student and staff growth provided that there are support systems in place which enable teacher creativity, autonomy, and teacher self-efficacy. Teachers viewed those systemic supports as enablers allowing them to explore the limits of their newfound skills. The development of empathy had such a significant effect with these teachers that they were more attuned to their students and found creative ways to work with individual students. But more than anything, these teachers that developed empathy felt a sense of perspective when they found it empowered their students to make personal choices that may someday have an effect on the wellness of their communities.

School districts have a responsibility to keep students safe and educate them, however, they also have a moral responsibility to ensure both psychological and physical wellness when the students are away from their parents. While incorporating mindfulness may only be one avenue of accomplishing this goal, it is nonetheless an avenue that is backed by 20 years of research and over 2,500 years of spiritual practice. What this study demonstrates is the unequivocal belief that teachers in one school district have in their ability to make a difference in

their students' lives because of the simple act of caring. The decisions the school district will

make considering its vested interest in such an initiative is dependent upon the building support

systems, providing training protocols and having them in place to confront (and possibly

remove) the many challenges.

Future Directions for Research (Recommendations)

The extent of mindfulness practices in public schools now reaches far and wide. Several developed countries besides the United States have been working with mindfulness-based curricula in both public and private schools (Edwards, 2016; Montgomery & Rupp, 2005). This study took place in a public school in New Jersey and covered a small portion of the teaching staff in one department. This study was also conducted after the standardized testing window set forth by the New Jersey Department of Education.

More research must be done particularly in the area of long-term studies in public and private K-12 education as this provides a foundation for future coping skills in our young adults entering higher education, the military, or the workforce. This is critical to the development of standardization and accreditation of training and certifying agencies so that mindfulness can be better established and adopted by states or both private and non-profit organizations, much like the Common Core State Standards or the training standards used by the American Red Cross and American Heart Association to certify first-responders in cardio-pulmonary resuscitation. States have not adopted standards for social emotional learning because they are relatively new in the educational arena and the focus has largely centered on student achievement through standardized testing put forth by policy enacted by *No Child Left Behind* (NCLB; 2001) and more recently the *Race to the Top* program (2014).

Long-term studies done with students over a period of two or more years are few in publication, however, they would provide how much improvement educators and parents may be able to expect over the course of a long-term which combines both educational and clinical outcomes.

In this study mindfulness examined the phenomena off what teachers experienced, however examining the phenomena that administrators experience may also provide useful data

to the field of mindfulness research. Students and staff achievement should also be taken into consideration in future studies. Do students who practice prolonged periods of mindfulness have higher tests scores? Is it possible to boost test scores across a district with a district-led initiative much like the initiative at the school district? Do teacher absenteeism rates drop in teachers whose classes practice mindfulness? Do teachers in a department or school within a district who practice mindfulness express higher satisfaction in their jobs compared with those in departments or schools that do not? What is the feasibility of promoting mindfulness not only within a school district, but also toward the surrounding communities in the form of school-based outreach projects?

Very few quantitative instruments exist that measure high-school aged students' aptitudes in mindfulness. Some of the more popular instruments such as the Depression and Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995), the NEO-five factor inventory (NEO-FFI; Costa & McCrae, 1992), the Self-Compassion Scale (SCS; Neff, 2003) Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003), or the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) are designed for clinical adult populations that measure different facets of mindfulness which may or may not be relevant to specific high-school level populations.

If school districts are intent on implementing mindfulness-based interventions in their schools, then teachers and curriculum administrators should take on the responsibility of designing school-based curricula that fit within a school's needs rather than relying on purchasing a turnkey curriculum. Various curricula that are on the market tend to target younger audiences and seldom do these curricular programs provide training to teachers. There are certification programs such as mindful.org and mindfulschools.org that provide certification, but often these programs require fundamental courses and are generally background courses. Kabat-

Zinn's (2013) MBSR course instructors were required to practice mindfulness themselves for a year prior to being able to even enroll in an instructor-level course. Broderick's (2013) *Learning to BREATHE* curriculum is the closest to addressing adolescent mindfulness, but still her trainings are sporadic and not available widely. Therefore, it is important that educators who have some form of mindfulness training work within their schools to establish a school-appropriate curriculum that can be modified based off subgroups of students.

School districts operating on the belief that social-emotional learning are critical to the benefit of student and staff must seize the opportunity to recommunicate their expectations to their communities and to their main stakeholders. Holding parental meetings, sending out information through social media, and inviting parents, students, and staff to come together in a forum that permits a free exchange of ideas is essential to ensuring proper administration of a mindfulness-based school mission.

School counselors are a vital part of the student wellness initiative. In this study, counselors were not interviewed yet in the school district. Counselors were also briefly trained in mindfulness through the same avenues as the health and physical education teachers. Many counselors sought out professional development opportunities on their own. However, future studies should focus on the combined practical applications of both the teachers and the counselors as a team within a school district and examine both the attitudes and perceived effects of mindfulness-based interventions on school-aged populations. Bohecker et al. (2014) found that counselors can incorporate a nine-week Mindfulness Experiential Small Group (MESG) curriculum to both meet the American Counselors Association's (ACA) Code of Ethics and exceed the Association for Specialists in Group Work (ASGW) and Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards.

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Appendix A

Review of the Literature

Initially used by the philosopher Immanuel Kant in 1764, the etymology of

Phenomenology comes from a Greek origin "phainein" which means "to appear" (Yüksel &

Yıldırım, 2015). Edmund Husserl (1859-1938) is considered the founder of phenomenological

research (Kafle, 2011; van Manen, 2016). Phenomenology is an umbrella term that includes both

a philosophical movement and a variety of research approaches (Kafle, 2011). Phenomenology

as a research method was founded in the 19th century as a counter thought to positivism (Reiners,

2012). The positivism paradigm exacerbated rationale based on measurable and objective ideals,

the fact that we can explain outcomes because we have the quantitative capability to do so. The

naturalists disagreed, and from their perspectives, certain outcomes were better understood

through individual and subjective realities (Reiners, 2012). Phenomenology is not concerned

with the technical or instrumental workings of a phenomenon, it seeks to understand the

ontological (nature of existence), epistemological (nature of knowledge), and axiological (nature

of values) workings (van Manen, 2016).

Husserl argued that phenomenology was not based on *facts*, but rather was concerned

with *realities*: "it... exclusively seeks to ascertain 'cognitions of essences' and *no 'matters of*

fact' whatsoever." (Husserl, 1983, p. xx). As such, Husserl believed that from a psychological

perspective, human beings should not be subjected to empirical methods because they lived

through external stimuli and did not have automatic responses (Moustakas, 1994). In light of

this, Husserl founded the transcendental approach to phenomenology and considered it to be

more appropriate than the scientific method (Eddles-Hirsch, 2015).

The following literature review will delve into the various methods of transcendental

phenomenology, hermeneutical phenomenology, answer questions about phenomenology, and

look at how phenomenology has been used as a tool in educational research. Next mindfulness

will be reviewed along with mindfulness and education, mindfulness and teachers, and issues with mindfulness in education.

Phenomenology

Transcendental Phenomenology

Husserl came to the realization that his version of research was based on a foundational approach which sought correct answers (Allen, 1999). Looking at phenomena in the life world and separating oneself from a reflective response to categorize or conceptualize is often taken for granted as common sense (Husserl, 1970). For Husserl, the main focus of the study appeared through consciousness, not meaning as: "He purported that minds and objects both occur within experience, thus eliminating mind-body dualism" (Laverty, 2003, p.23).

Husserl divides phenomenon into two separate meanings: the objective experience of the object (noema), and the experienced acts of consciousness (noesis) (van Manen, 2016). For example, if students practiced meditation in health classes, the noema would be the sounds of the teacher instructing them through a guided meditation, while the noesis would be the reactions to how the students felt following the meditation. "In relation to science education we might speak of the teacher's double focus in the learning situation: the attention is, on the one hand, directed towards the subject itself, or the phenomena in nature and, on the other hand, towards the students." (Østergaard, Dahlin, & Hugo, 2008, p.97). Eddles-Hirsch (2015) confirms that researchers must consider both the noema and the noesis to gain comprehension of participant experiences.

In an effort to obtain true meaning from *essences*, Husserl claimed that an individual needed to "bracket" out external stimuli and individual preconceived notions; this was an effort to see the phenomenon clearly (Laverty, 2003). Other researchers have attempted to describe the

bracketing process as an opportunity to set aside presuppositions about the inherent nature of the phenomena to capture all the characteristics (Osborne, 1994).

There are issues with bracketing however, as Husserl contended that researchers are able to understand essences "without inferring their concrete existence in the world" (LeVasseur, 2003, p. 412). If we were to examine the essences of quadrupeds and found that the essence of a horse is similar to the essence of a unicorn, without acknowledging our own experiences of what constitutes a real creature from a mythological creature, we would consider them both to exist (LeVasseur, 2003). Van Manen (2016) suggests that the epoché (bracketing) is difficult because our bodies and our minds are connected, we remember smells, touches, sounds, and once we experience them ourselves, we are more likely to trigger memories; as such "[t]he phenomenology of remembrances that are elicited from the things our lifeworld (leaves, bells, a band, an image, a playground) are not necessarily under our control" (p. 218). LeVasseur (2003) recommends that individuals are more likely to be open-minded when they are curious about new knowledge, and therefore recommends adjusting our philosophical attitudes and in effect, question our prior knowledge.

Hermeneutical Phenomenology

Hermeneutics is derived from the Greek word "hermeneuō", which means to *translate*, or *interpret* (Klein, 2000, p.344). Just as art can be interpreted as beauty or ugliness from various perspectives, hermeneutics as a method has been interpreted differently by various researchers (Gadamer, 1975; van Manen, 2016). In the traditional sense, hermeneutics referred to interpreting meaning from texts that have had various meanings, predominantly religious texts (Kvale, 1996)."Like [transcendental] phenomenology, hermeneutic phenomenology is concerned with the life world or human experience as it is lived." (Laverty, 2003, p.24). Hermeneutic

phenomenology is a method (a way or attitude of approaching a phenomenon) of abstemious

(reflecting on experience to look to abstain from theoretical or emotional intoxications) reflection

on the simplest structures of the lived experience of human existence (van Manen, 2016). "It is

an interpretive endeavor and it therefore informed by hermeneutics, the theory of interpretation"

(Smith, Flowers, & Larkin, p.3). Martin Heidegger (1889-1976) was a student of Husserl's and

found himself disagreeing with the transcendental approach of "bracketing" whereby a

researcher disconnects from his own beliefs in order to understand a phenomenon (Eddles-

Hirsch, 2015). Heideggar believed that phenomenology's purpose, when used as a method, was

for the researcher to *interpret* lived experiences rather than simply *describe* them from a

detached standpoint (van Manen, 2016).

While phenomenology encompasses a vast array of philosophies and beliefs,

hermeneutical phenomenology is a method of research in its own right. "It should be pointed out,

however, that all or much of phenomenology has hermeneutic (interpretive) elements—but not

all hermeneutics is phenomenology." (van Manen, 2016, p. 26). Hermeneutic phenomenology is

"concerned with how a phenomenon appears, and the analyst is implicated in facilitating and

making sense of this appearance." (Smith et al., 2012, p. 28). Many researchers have tried to

present phenomenology as a single approach but failed to grasp the differences between the

various types of phenomenology (Eddles-Hirsch, 2015). Table 1 clarifies the major differences

between the two major phenomenological methods (Laverty, 2003; Matua & Van Der Wal,

2015; Reiners, 2012; van Manen, 2016).

Table 4

Comparisons Between Transcendental and Hermeneutic Phenomenology

Transcendental	Hermeneutic
Descriptive.	Interpretive.
Objective.	Subjective.
Absolute value.	Relative value.
Experiences come in attendance, perception, recall, and thinking.	Experiences come from beings interacting with their world.
The study of the lived experience or 'Lebenswelt'	The study of the lived experience or 'Lebenswelt'
Allows the development of a perspective inclusive of external, physical, isolatable stimuli	The researcher is integral to the research and her previous understanding and knowledge 'fore-structure' helps interpretation
Focused on understanding "beings" and/or "phenomena".	Focused on *Dasein*, or the *mode of being human.* The relationship between the *human* and the *world*.
Capturing the 'essence' of the phenomenon	Capturing the 'essence' of the phenomenon
Both a philosophy and a method of research.	A method of research.
Includes "bracketing" stimuli.	Relies on intrinsic awareness that draws meaning from own constructs of the experience.
Interested in subjects' descriptions of the experiences.	Interested in subjects' interpretations of the phenomena.
Consciousness is possible to separate from the self.	Consciousness and the self *cannot* be separated.
Does not rely on past.	Takes into account the history of the lived experience.

Questions in Phenomenology

Phenomenological questions arise when we have questions about the existence that cause one to pause and reflect (van Manen, 2016). Heidegger (2010) said "Hence phenomenology means: to let that shows itself be seen from itself, just as it shows itself from itself." (p.32). Researchers have tried to define this statement and perhaps van Manen (2016) interprets it best as "phenomenology aim to 'let show itself'" something that is "concealed or hidden" (p.28). When researching a phenomenon, the researcher must first identify it, then describe it; Creswell and Poth (2018) provide examples of phenomena in emotional states such as anger, or social constructs such as professionalism. Standal's (2014) study on adapted physical activity participants explored the difficulties disabled persons felt when learning motor skills and elucidated to the living in the situations they were in.

Phenomenology has been used to find meaning from ethics (Levinas, 1978), existence (Sartre, 1956), gender (de Beauvoir, 2011), embodiment (Merleau-Ponty, 1962), sociology (Schutz, 1970) and politics (Arendt, 1951). Phenomenological methods are more geared towards finding the right questions than finding the right answers (van Manen, 2016). Phenomenon can also describe bodily characteristics such as being obese or underweight or classify through professional descriptors such as the meaning to be a teacher (Creswell & Poth, 2018). The next section will examine phenomenological research in the context of education.

Phenomenology Research in Education

According to Creswell and Poth (2018) phenomenology may be considered too structured by some researchers, but if a study should require it, then researchers should be well-versed in some of the philosophical underpinnings of the method. Phenomenology is about the practice of living and has been described as a human science (van Manen, 2016).

It is viewed by many as a mode of philosophical inquiry (Randles, 2012) but also aims to describe the phenomenon through detailed descriptions and interpretation (van Manen, 2016; Randles, 2012). When looking specifically at phenomenological human science, as opposed to philosophical phenomenology, there is a presence of certain empirical and analytical methods that stem from the social sciences (van Manen, 2016).

Education is one of the most important elements that helps sustain societies and considers the social order and histories of changes and innovations (Kozikoğlu, 2017). Phenomenology is useful in educational contexts because researchers can get deeper into the analysis by interacting deeply through the experiences and expressions of participants (Patton, 1987). In the field of educational research, we are going back to the historical social sciences, and looking at human behavior in a natural environment.

Phenomenological research is said to be a common approach when doing qualitative studies, and places an emphasis on studying people (Creswell, 2014; Randles, 2012). Qualitative researchers at times will put themselves into the study (Randles, 2012) which support Spiegelberg's (1975) claims that the spirit of doing phenomenological research resides in the phenomena and experience itself. McEwan and McEwan (2003) explain the idea of qualitative research in simple terms by giving it three main characteristics, it is: descriptive, focused on meaning, and naturalistic. Randles (2012) supports this simplification by saying qualitative research allows the researcher to remember what was most meaningful about the specific phenomenon being studied.

In order for one to become a good researcher in hermeneutical phenomenology, one must possess a zest for reading texts, particularly transcripts, deduce meaning out of anecdotes of personal meaning, and be able to isolate themes (Sloan & Bowe, 2014). Phenomenology has often been used by researchers to gather wide-angle looks into specific phenomenon, specifically

educational situations such as composition and improvisation with children and curriculum development (Randles, 2012), or to even look through a wider-angle lens to study and understand student perspectives on a large college campus (Sohn, Thomas, Greenberg, & Pollio, 2017).

Any individual reading phenomenological research should be able to grasp why the phenomenon is valuable and what constitutes its importance (Randles, 2012). A team of researchers from the University of Tennessee give great support for phenomenological educational research, referencing the following issues which have been studied using the phenomenological research framework: underachieving students and the teachers in a K-12 setting, court-mandated adult education, transformative learning in a graduate seminar, the student experience of other students, and the students' experiences of taking their first standardized tests (Sohn et al., 2017). Each of these examples supports Randles' (2012) commitment to the idea that phenomenology is a research methodology that is naturally linked to practice.

Education is a field where all stakeholders are held accountable in their personal practices, and these practices are often looked at through the lens of a researcher. The same previously mentioned educational research team from the University of Tennessee, support the efforts of educational research done through the phenomenology methods, pointing out the value of the contributions of many contemporary scholars of phenomenology have made (Sohn et al., 2017). When it comes to the field of education, Randles (2012) also supports the importance of phenomenological research, stating, "It is hoped that this article will demonstrate to the field where phenomenology has been useful and where it might be useful in the future." (p.9).

In a study conducted with entrepreneurship educators, a phenomenological method was used to determine the experiences of those who were successful at fostering entrepreneurial skills

in their students. The researcher found four themes that emerged: entrepreneurship ability in

teaching programs, the methods and techniques (pedagogy) used when transferring those skills,

the difficulties in transferring entrepreneurialism, and suggestions for improvement in

entrepreneurial education. Phenomenology was useful in this study of entrepreneurial educators,

because the eight participants interviewed claimed that those teachers who had experiences

opening up their own businesses tended to be better than those that did not. Among the various

reasons why entrepreneurs made better entrepreneurship educators included: the ability to

evaluate opportunities, perseverance, sociability, continuous development, taking initiative,

consistently prepared, and lifelong success—all of which were considered critical entrepreneurial

skills (Aladağ, 2017).

In recent years, science educators have increasingly begun to show interest in

phenomenology, especially since phenomenology is a method of research itself, researchers have

asked if teachers could combine the study of phenomena of natural sciences with the experiences

of those who observe the phenomena—the students, in their classes (Østergaard et al., 2008). A

branch of phenomenology called *anthropological phenomenology* adds another dimension to

science education with its combination of natural phenomena, cultural phenomena, and social

phenomena.

In a mixed-methods study involving social studies teachers and character education in

Turkey, the researcher utilized a phenomenological method to examine the experiences of

teachers who were required to prioritize values in lesson planning. However, when interviewed,

the several teachers believed that the Turkish Ministry of National Education was pushing

ideological values that were not reflective of the teachers' own values and hence, did not provide

the necessary attention to developing ethical principles in young children (Katılmış, 2017). In the

same study, the quantitative methods combined with qualitative survey data yielded positive

results that character education was indeed prioritized, however, from the phenomenological

interviews with the individual stakeholders, the values education component was falling short

because of the perceived ill-effects of ideological motives.

Phenomenology has also been used when examining technology usage. To understand

teacher techniques and educational technology skills, nine teachers volunteered to be interviewed

through open-ended semi-structured interviews, in addition, they were also asked to draw

concept maps of the various ways they implemented technology in their teaching practices. A

content analysis was conducted using Miles and Huberman's (1984) three-stage technique of

data reduction, visualization of the data, and results and confirmation. Results of the

phenomenon indicated that while teachers indicated a liking to using non-electronic materials for

teaching, they found that using educational technology tools likely increased creativity in their

students. When probed further, the researchers found that teachers who were more likely to feel

they had less self-efficacy were more likely to use other materials instead of educational

technology. At the end of the study, teachers felt that while they possessed adequate levels of

educational technology skills, they found that: lesson design, classroom management, extensive

thinking, research skills, presentation skills, and a working knowledge of learning principles

were more likely to be elements of effective teaching than educational technology skills (Orhan-

Karsak, 2017).

The explanations of these phenomena in education provide rich descriptions from

participants' experiences—deepening the layers of meaning (Randles, 2012). Educational

practitioners and researchers used phenomenology because it provides the necessary first-person

perspective rather than a third person account that is common in other scientific fields (Standal,

2014).

Phenomenology and Teachers

The function of education hinges on the capacity for the teachers to fulfil their duties by providing quality instruction and engagement (Kozikoğlu, 2017). We have often heard the saying: "Walk a mile in someone else's shoes" to demonstrate the concept of empathy. It would be appropriate then to assume that if teachers ask their students to "do unto others" then they too will urge their students to develop empathy. Phenomenology, when used as a practice for understanding seeks to develop the empathetic traits in educational researchers. Phenomenology as pedagogy was first advanced by van Manen (1993) when he put forth the three tenets of pedagogical *meaning*: (1) being in touch with situations involving students, (2) orchestrating the learning, and (3) handling situations with sensitivity. Goodwin (2009) provides an ideal example of what teachers need to understand—the fact that understanding is not enough, and if educators are to create an impact then they cannot come back to their practice the next day unchallenged by experiencing the phenomena of these *lived experiences.* Teachers observe student learning on a daily basis, however, just because students demonstrate this learning does not mean that teachers can adequately pinpoint what about their experiences became successes. "Teacher competence in teaching and learning is an important factor in determining the success of teaching." (Kozikoğlu, 2017, p.64). Some researchers have implied that teachers may be the best researchers of teaching and learning (Roberts, 1994).

Aladağ (2017) reminds us that although phenomena can appear in various forms and show up as "events, experiences, perceptions, orientations, and situations in the world we live… acquaintance does not mean we understand the facts." (p.53). Researchers need to carefully consider how their own understandings (or misunderstandings) could potentially alter the way they administer and analyze research. Educators must become phenomenologists if they are to advance their practices, particularly in the areas of students with challenges (Standal, 2014).

"Teachers and instructors continue to assume that their view of the world is the students' view of the world and that they understand and know the needs and interests of their students" (Goodwin & Watkinson, 2000, p.145). In an article titled *Purple Suede Shoes* (Fite, 1999), the author recites reading a story of *Goldilocks and the Three Bears*. While she read the story with excitement and tried to engage the children, the children seemed perplexed by the purple suede shoes she was wearing and lost attention. Twenty years later she reminds her readers and those she prepared to become teachers—that children "see the world differently than adults do." If teachers are to be effective in the classroom, no matter what age, they must experience the world as their students do.

By using the phenomenological methods, Kozikoğlu (2017) was able to experience what prospective teachers viewed as the ideal teacher. The researcher defined the definition of the phenomenon as the conceptual tools that teachers needed to be considered ideal. Thirty-six ($n=36$) pre-service teaching majors at the Yüzüncü Yıl University were gathered from a purposeful sample. Research for this study took four stages: (1) a non-ideal teacher interview, (2) a placement of ideal and non-ideal teachers on a spectrum, (3) a writing task that asked teachers to distinguish *ideal* characteristics from two-out-of-three qualified teachers represented, and (4) a scoring of personal qualities that represent constructs for ideal teachers. Results from the study yielded 356 separate constructs for what constituted an ideal teacher. Constructs such as effective speech, effective communication and openness were organized as "communication skills. All constructs were then distilled to create the essence of what an ideal teacher possessed: communication skills, student-centeredness, innovativeness, and sensitivity.

There is much qualitative phenomenological research examining negative experiences and claiming "change" to be the simple solution; while change is inherent in most phenomenological research, particularly in pedagogy and curriculum, researchers need to also

examine the practices of the model pedagogues to find what separates them from the rest

(Standal, 2014). Pedagogues are often more sensitive to those in the profession and have attuned

themselves to the lived experiences of their colleagues (van Manen, 1993).

Mindfulness

Mindfulness is the act of paying attention to one's own surroundings and accepting

experiences while being fully present and aware throughout the day's events (Jennings, 2015).

Mindfulness draws its roots from Eastern philosophy of mindful meditation and Buddhist

teachings (Compton & Hoffman, 2013). Followers of Buddhist teachings profess a holistic

philosophy that helps to develop a person's sense of awareness, affect, and the opening of the

mind (Gates & Gilbert, 2016). Its opposite form is mindlessness, or an awareness associated with

inattention (Langer, 2014). Mindfulness can be practiced in a formal or informal fashion; formal

practices include: mindfulness meditation, attending to body sensations, and being aware of

sensations and thoughts, informal practices is when an individual weaves mindfulness into their

everyday being such as: mindfully eating, mindfully walking, mindfully showering, and having

mindful interactions (Meiklejohn et al., 2012). In a study that examined mindfulness practices in

teachers using an MBSR course adapted specifically for teachers using a randomized controlled

study design of a modified 8-week (~26-hour) intervention, the mindfulness intervention group

showed significant decreases in stress levels and burnout, with improvement in classroom

organization and performance when compared to the waitlisted control group. The intervention

group also showed a statistically significant decrease in cortisol production with increases in

psychological functioning (Flook, Goldberg, Pinger, Bonus, & Davidson, 2013). With over 20

years of neuroscience, medical, and psychological research, teachers are just like the rest of the

population—they can attain the benefits of reflective discipline with mindfulness practice (Meiklejohn et al., 2012).

Mindfulness encompasses mindful breathing (Viafora, Mathiesen, & Unsworth, 2015), mindful walking (Wolf et al., 2016), mindful meditation (Gates & Gilbert, 2016; Kabat-Zinn, 1993; 2013), and various other forms of activities and exercises (Broderick, 2013; Hassed & Chambers, 2015; Jennings, 2015; Rechtschaffen, 2014) that demand cognitive practice. Practitioners of mindfulness often tout the benefits ranging from clearer thinking (Gockel, 2015; Shoshami, Steinmetz, & Kanat-Maymon, 2016), better self-awareness (Bernier, McMahon, & Perrier, 2017; Bostic et al., 2015; Metz et al., 2013; Toomey & Anhalt, 2016;), and better moods (Lau & Hue, 2011; Schonert-Reichl et al., 2015; Schwind et al., 2017) . In the early 1990's, Jon Kabat-Zinn, a medical doctor at the University of Massachusetts Medical Center, performed treatment on patients who had difficulty dealing with chronic pain, and found success with mindful meditation and pain acknowledgment (Kabat-Zinn; 1993, 2013).

In today's fast-paced world, resources often compete for our attention. As Levey and Levey (2015) state, "[t]he very things that are supposed to save time and give us the opportunity to relax and enjoy are too often the cause of hassle and worry." (p.v). Of the 301 diseases indexed in the *Global Burden of Disease* study, diseases associated with mental health heavily influenced worldwide health accounting for 21.2% of years lived with a disability (Vos et al., 2013). In the same study, depression and anxiety came in as the leading and second-leading causes of mental health followed by schizophrenia. Depression was also a major cause of disability in 26 countries, more so than back pain. Approximately one out of six adolescents experience depressive episodes by the time they reach ages 15-16 (National Institute of Mental Health, 2016).

Mindful meditation is only one form of mindfulness, yet it allows a person to focus on his or her breathing and bring it back to a natural rhythm which is useful in stressful situations (Gates & Gilbert, 2016). Mindfulness practices such as meditation have been shown to affect patterns of brain development in the hippocampus, and increase gray matter (Hernández, Suero, Barros, González-Mora, & Rubia, 2016), as well as improve creativity and cognitive flexibility—the mental ability to switch between different concepts (Müller, Gerasimova, & Ritter, 2016). Examining the effects of mindfulness practices on depression (Chambers, Phillips, Burr, & Xiao, 2016; Falsafi, 2016; Lau & Hue, 2011; Toomey & Anhalt, 2016), anxiety (Gouda, Luong, Schmidt & Bauer, 2016; Lam, 2016, Quach, Jastrowski Mano, & Alexander, 2016), and productivity (Flook et al., 2013) in education may assist instructors in classroom settings as well as improve teaching practice. The purpose of this section in the review is to examine the effects of mindfulness on various aspects of the educational environment including teaching and learning, and its applications to improve learning.

Mindfulness and Learning

The research on mindfulness in cognitive psychology spans cognitive brain-based science—the physiology of the brain and the capacity for memory and learning, positive psychology—the role of happiness and positivity, and mindfulness concepts—the existential development of self-awareness brought on by the practice of mindfulness. Learning to disconnect and center one's mind could be beneficial to production (Flook et al., 2013; Jennings, 2015). The awareness provoked by noticing sensations through certain mindful exercises such as meditation have shown to increase left-sided prefrontal lobe activity as well as demonstrate decreased hyperactivity in emotional areas of the brain (Bostic et al., 2015). A study involving 23 long-term practitioners of Sahaja Yoga Meditation (SYM) were compared with 23 similar

non-SYM participants in age and education; voxel-based morphometry revealed larger right

hemispheric brain areas such as the ventromedial orbitofrontal cortex, the insula, and the inferior

temporal lobe—areas which control affect and attention control (Hernández et al., 2016). The

topic of mindfulness has now spread far and wide with public institutions to private corporations

looking to attain better results from using mindful strategies. There are several recognized

mindfulness-based interventions available that are derived from various doctrines. Several

incorporate mindfulness, while in other programs, mindfulness *is the key component*, see Table

5.

Table 5

Available Mindfulness-Based Interventions (MBI)

Program	Doctrine	Mindfulness Role	Format	Target Population
Acceptance & Commitment Therapy (Hayes, Strosahl, & Wilson, 1999)	Eastern & Western psychological approach to well-being	Mindfulness constitutes only *part* of the treatment	Individual & group based. Lasts 1 day or up to 16 weeks	Originally psychological patients. Now includes healthy individuals with stress.
Mindfulness-Based Stress Reduction (Kabat-Zinn, 1982)	Eastern philosophy and psychological approach	Mindfulness is *central* to the treatment therapy	Group based. Fixed duration of 8-10 weeks.	Originally psychiatric and pain trauma. Now includes healthy individuals with stress.
Dialectical Behavioral Therapy (Linehan, 1993)	Eastern & Western psychological approach to well-being	Mindfulness constitutes only *part* of the treatment	Individual & group uses. Each stage lasts 1 year	Psychiatric borderline personality, impulsivity, and eating disorders.
Mindfulness-Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002)	Eastern & Western psychological approach to well-being	Mindfulness is *central* to the treatment therapy	Group based. Fixed duration of 8-10 weeks	Psychiatric and chronic depression.

Mindfulness in Education

Mindfulness shares traits that are similar to other states of consciousness such as self-awareness (Leary, Adams, & Tate, 2006) and self-focused attention (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Training students how to be aware is a skill, much like reading, writing, speaking, and calculating (Francesconi & Tarozzi, 2012). Mindfulness can be taught through three separate approaches: direct, programs that are directly implements to impact students; indirect, informal activities developed by teachers who have their own mindfulness practices; and a combination of the two (Meiklejohn et al., 2012).

Various mindfulness curricula are available to education practitioners; several have been tested and have found promising results when used in a K-12 environment. Several authors have published mindfulness curricula and academicians are able to modify certain aspects of selected curriculum based on the populations of participants. These curricula are available both online and in written, hard-copy format, and they have been tested in the field. Table 6 lists available mindfulness curricula in K-12 education to date of the research report.

Table 6

Available Mindfulness-Based Curricula For K-12 Education

Program	Grade Level	Method
Cultivating Awareness and Resilience in Education^{TM} (Jennings, 2015)	Teachers (indirectly filters down to all students in classrooms)	A prosocial program that was designed by educators and scientific advisors to promote social and emotional competence (SEC) in teachers. Practices are rooted in classroom organization, instruction support, and co-worker reinforcement. Focus is on helping teachers attain a daily mindfulness practice that will radiate towards their students.
Learning to BREATHE (Broderick, 2013)	7-12	Based on the MBSR method by Kabat-Zinn (1982) students learn social and emotional learning skills by using the BREATHE acronym. The program can last 6, 12, or 18 weeks.
Mindfulness in School Project (MiSP, 2017)	9-12	Based on both the MBSR and MBCT methods. A 9-week course that is infused into regular daily lessons.
(*MindUP*, n.d.)	Pre-K-8	A complete social-emotional learning (SEL) program based on the work of the Collaborative of Academic, Social, and Emotional Learning (CASEL). Program requires mindful breathing incorporated at least 3 times per day either before or during lessons.

Waters, Barsky, Ridd, and Allen (2015) make the argument that school curricula are already overloaded and teachers must be able to target various standards, therefore any additions must be meaningful. Traditional approaches to teaching mindfulness are usually "toolbox" alternatives, like turnkey curricula or adding bits and pieces of mindfulness throughout units. This approach, while common in education, may work with other units, but may not work in a mindfulness setting (Meiklejohn et al., 2012).

A randomized controlled trial compared the effectiveness of the online *MindUP* curriculum against Canada's own Social Responsibility Program (SRP) on various biological and

behavioral measures involving 99 students in grades four and five from four different schools in

a middle-to-upper middle class Canadian suburban neighborhood (Schonert-Reichl et al., 2015).

The SRP acted as the control treatment and resources and guidelines were provided to teachers

online from the British Columbia's Ministry of Education and acted as a control condition.

While both the *MindUP* curriculum and SPR interventions shared common themes in promoting

acts of kindness and collectively engaging community, only the *MindUP* program incorporated a

daily breathing program (performed for three minutes) and promoted positive prosocial behavior

through social-emotion understanding, mindful smelling, mindful tasting, and positive mood

exercises. Researchers performed a battery of assessments: (1) the flanker tests which required

study participants to react to stimuli on a computer screen and change responses based on a

change in stimuli, (2) salivary cortisol tests measured three times daily (9 a.m., 11:30 a.m., and

2:30 p.m.), and (3) child self-assessments on personal perspectives, optimism, social

responsibility, empathy, and mindfulness. Other measures included perceptions by peers as well

as an achievement measure through a summative mathematics assessment. Over the course of

four months, the study found statistically significant positive behavioral and cognitive changes

in *MindUP* children in comparison to the SRP children. *MindUP* treatment intervention

produced significant improvements in self-reported measures of well-being, and self- and peer-

reported prosocial behavior. The children in the *MindUP* treatment intervention demonstrated

better math performance relative to children who received the SRP treatment. Cortisol in both

treatment groups did not show significant differences between the two groups.

Mindfulness was cultivated in 9-to-13-year-old at-risk children from seven separate

fourth-to-sixth grade classrooms at an elementary school in Hong Kong (Lam, 2016).

Participants were selected based on anxiety and depression scales, and strengths and difficulties

self-reported questionnaires. Both parents and students filled out questionnaires, and 20 students

were selected to participate in the nine-week intervention. The procedure involved two-stage

screening aimed at identifying children with subclinical levels of internalizing problems. The

intervention consisted of randomization into a pre- and post-treatment group or a waitlist control

group. The MBCT program was adapted from Segal, Williams, and Teasdale's (2002)

framework for adults, and was administered after school hours. Results indicated that the

treatment group experienced moderate effect sizes compared to the control group in reducing

anxiety syndromes and decreasing problem internalization. The treatment group measured small

effect sizes compared to the control group in youth depressive symptoms. Statistically significant

differences regardless of group were reported for panic, generalized anxiety, and obsessive-

compulsiveness. Lasting effects were measured three months after the intervention.

Stress and mental health issues do not end when students graduate from secondary

schools; mindfulness studies demonstrate the benefits that college educators may replicate in

their own learning environments. In an exploratory study, researchers at Ryerson University

recruited 52 graduate and undergraduate students and offered instructor-guided mindfulness

practices over eight weeks to examine whether mindfulness-based exercises assisted students

with higher levels of engagement and lower stress levels (Schwind et al., 2017). The students

were encouraged to partake in exercises at home for 5-to-15 minutes of mindful breathing 4-5

times a week and keep a log of their experiences. At the end of the intervention, the participants

were invited back for interviews in small focus groups, only 25% of the students consented

(n=13). When interviewers asked questions such as: "Describe your experience of engaging in

mindfulness practice," (p.94) "How did brief mindfulness practices impact your academic work,

your clinical practice, and your sense of well-being?" (p.94) "What were the facilitators/barriers

to engaging in mindfulness practice?" (p.94) respondents generally stated: "It helped with

managing stress," (p.94) "I felt more relaxed," (p.94) "Great way to start the day," (p.94) and "It

helped me deal with school" (p.94) respectively. At the end of the study, the students

subjectively rated their instructors' demeanor as one of the elements that influenced the way the

students felt during sessions. Students found varying difficulty with practicing mindfulness at

home due to workload and other obligations. However, the mindfulness intervention has shown

to be a positive experience for the students overall and found similar positive effects of

mindfulness on both the teaching and learning processes.

Yang and Goralski (2016) sought to understand how mindfulness concepts taught in

undergraduate and graduate business courses affected students' stress levels and examined

whether students could incorporate it into their daily lives. Using qualitative feedback, two

instructors administered a pre-course survey four weeks into the semester that asked four

questions: "To what extent were you familiar with the notion of mindfulness before taking this

course?" (p.18) "What was your first impression of mindfulness?" (p.18) "What is your current

understanding of mindfulness?" (p.18) "What changes have you noticed in your life for the past

four weeks?" (p.18). During the course, students were required to complete journals and attempt

to work towards creating mindful habits. The authors then followed up at the end of the semester

and asked four similar questions: "Upon having almost completed a course on mindfulness, what

is your most current understanding of mindfulness?" (p.18) "What has been the most difficult

aspect for you in understanding the concept of mindfulness?" (p.18-19) "What has been the most

difficult aspect for you in practicing mindfulness meditation?" (p.19) and "What changes have

you noticed in your life for the past fifteen weeks?" (p.19). The authors also performed an

examination of meditation journals, essays, and research papers, to conclude that using a

pedagogical approach to mindfulness may be effective in helping students maintain personal

health and well-being under rapidly changing environmental pressures. The pressures of

advancing through higher education can be stressful to undergraduate, graduate, and transfer

students. Students in the study indicated that stress came from hectic work and study schedules, constant connectivity to social networks, and the pressures of maintaining open communication through school and work email. Students found however, that while incorporating mindfulness practice was difficult initially, it eventually became helpful later on in the semester once it was an ingrained habit. If colleges and universities can provide their students the tools to manage anxiety and emotional changes, the institutions will increase the probability that students will finish on time.

Mindfulness and Teachers

Teachers need to have the skills that allow them to continuously develop and possess the skills that society needs as changing times require an evolution of instruction (Kozikoğlu, 2017). Futhermore, Meiklejohn et al. (2012) recommend that teachers need to be given methods for attaining good executive function because work environments can be stressful. Research involving teachers who implement mindfulness practices in their own lives and classrooms are an important consideration. Often the atmosphere and the quality of the learning environment is a direct result of classroom management and in establishing a culture of learning (Danielson, 2007). Thus, teachers must first embody the traits of mindfulness in order to be empowered to teach mindfulness (Meiklejohn et al. 2012).

Mindfulness has been explored with both students and teachers, however, Gates and Gilbert (2016) have begun working with school leaders to develop five attributes which are believed to be mindfulness-based training: (1) attention to the present, (2) receptivity to experience, (3) proclivity to question, (4) cultivation of compassion, and (5) responding with wisdom. Incorporating mindfulness into teaching practice provides twice the benefits to educational stakeholders, particularly those who are learners. Educational leaders need to

acknowledge that mindfulness can be taught in educational institutions and research is trending

towards positive improvements in learning and cognition. (Lanestrand, 2012; Martin, 2018;

McConville, McAleer, & Hahne, 2016; Stillman, You, Seaman, Vaidya, & Howard, 2016).

Gouda et al.'s (2016) prospective cohort pilot study used a controlled waitlist design and

involved 29 students ($n=15$ intervention; $n=14$ waitlist) and 29 teachers ($n=14$ intervention;

$n=15$ waitlist) assigned into either an intervention or control group. Both groups were

administered MBSR courses with the control group receiving the same treatment as the

intervention group four months earlier. Both groups were given pre- and post-intervention

questionnaires measuring self-reported mindfulness (Freiburg Mindfulness Inventory, Walach,

Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006), stress (Perceived Stress Questionnaire,

Fliege, Rose, Arck, Levenstein, & Klapp, 2001), anxiety and depression (Hospital Anxiety and

Depression Scale, Herrmann-Lingen, Buss, & Snaith, 2005), test anxiety (Test Anxiety

Inventory, Schwarzer & Jerusalem, 1999), self-efficacy (General Self Efficacy Scales, Schwarzer

& Jerusalem, 1999), self-regulation (Self-Regulation Scale, Schwarzer & Jerusalem, 1999),

emotional regulation (Emotion Regulation Skills Questionnaire, Berking & Znoj, 2008),

interpersonal competences (Inventory of Interpersonal Problems, Horowitz, Alden, Wiggins, &

Pincus, 2000), openness (NEO Five-Factor Inventory, Borkenau & Ostendorf, 1993), creativity

(Test for Creative Thinking-Drawing Production, Urban & Jellen, 1995), and work engagement

(Utrecht Work Engagement Scale, Schaufeli & Bakker, 2004) . Results found that relative to the

control group, students in the intervention group experienced statistically significant

improvements in self-reported stress, self-regulation, and school-specific self-efficacy. In the

same study, teachers in the intervention group reported significantly higher levels of self-

reported mindfulness and a reduction in interpersonal problems when compared with the

waitlisted control group. The study showed medium effect sizes for mindfulness, anxiety, and

creativity for students in the intervention group, and medium effect sizes on anxiety and emotional regulation in the teacher intervention groups.

With much of the research centered on adult patients, children in K-12 settings, or graduate students, Meiklejohn et al. (2012) performed a comparative study of three programs that help teachers specifically deal with work-related stress: Mindfulness-Based Wellness Education (MBWE), Cultivating Awareness and Resilience in Education (CARE), and Stress Management and Relaxation Techniques (SMART) in Education. These programs, however, focus more on non-didactic modes of mindfulness (an indirect approach) rather than empower teachers with the training to teach skills directly to students. The research found that while these mindfulness-based programs are accepted methods of stress reduction for adults, suggestions on the merit of integration and acceptance of mindfulness-based programming needed to objectively assess the rigor of existing research, integrate the current research into existing programs and evaluate and publish findings, design longer experimental trials, conduct more interventions across a broad range of mental health populations, determine the relationships between what is valued and what is evaluated in a school setting, and finally, being able to integrate teacher and student mindfulness wellness programs to help broaden the appeal, efficacy, and scalability of these programs, only then will these programs get the much-needed support they need to help individuals flourish professionally and personally (Meiklejohn et al., 2012).

Issues with Mindfulness in Education

Education continues to be one of the most stressful fields with most new teachers leaving the profession (Paris, 2013). Developing professional teachers with adequate teaching practices is paramount to being able to increase teacher motivation, professionalism, empowerment, and autonomy while at the same time decreasing burnout and stress (Pearson & Moomaw, 2005).

Much of the mindfulness research in K-12 education is problematic, some issues include: small sample sizes (Franco et al., 2016; Fung, Guo, Jin, Bear, & Lau, 2016; Lam, 2016; Lau & Hue, 2011; Toomey & Anhalt, 2016), lack of diversity (Falsafi, 2016; Schwind et al., 2017; Waters et al., 2015), poor experimental designs (Wolf et al., 2016; Yang & Goralski, 2016), short treatment durations (Cavanagh, Vartanian, Herman, & Polivy, 2014; Lau & Hue, 2011), or poor facilitation (Schwind et al., 2017). These issues make it difficult to generalize results and call into question the validly and reliability of the research methods. Several studies also provided self-reporting assessment (Coholic & Eys, 2015; Falsafi, 2016; Fung et al., 2016; Gouda et al., 2016; Metz et al., 2013; Yang & Goralski, 2016) which call into question reliability of the measures.

Another element that may subject the research to more scrutiny is that mindfulness research has its roots in Eastern philosophy and Buddhism. Kabat-Zinn (2003) remarks that if we are to take mindfulness and meditation seriously, we need to separate it from religion and work to make it a non-secular routine. Even those who are not religious may have issues with attending contemplative centers because of the association with East Asian language, iconography, and an undercurrent of Buddhist teachings (Cullen, 2011).

Very few mindfulness studies focus on the daily effects of mindfulness or even the follow-up of mindfulness effects post-intervention (Creswell, 2017). Jayawardene, Lohrmann, Erbe and Torabi (2017) recommend that researchers "include a follow-up period post-intervention for all groups with adequate reporting of information, including intervention participants' continuing practice of learned mindfulness exercises" (p.158). In one study involving the positive effects of mindfulness on sleep-deprived teacher populations, mindfulness effects from intervention began to fade after a three-month follow-up (Crain, Schonert-Reichl, & Roeser, 2017). This is on par with a systematic review examining 15 facets of wellness which

included: mindfulness, burnout, stress, psychological distress, depression, occupational self-compassion, quality of sleep, relaxation, anxiety, occupational stress, life satisfaction, mood, efficacy in regulating emotions at work, self-efficacy and locus of control, and work engagement; researchers similarly found that of 23 studies only 14 studies tested short-term effects, while only six studied short-to-midterm effects no longer than four months; only three studies did the follow-up measures to one year (Janssen, Heerkens, Kuijer, Engels, & van der Heijden, 2018). The implications are problematic because all employers should want their employees to be in peak mental and emotional condition. Since most careers do not revolve around an eight-week to four-month work season, it is imperative that longer term studies greater than one year that incorporate measures at regular intervals be administered.

Some researchers have cited that the reason mental health practices have not been accounted for in public education is that "achieving health outcomes is not the core business of schools" (Rowling, 2009, p.358). However, because adolescence is a key stage in human development, and because K-12 education is mandatory in all 50 states, schools should take the opportunity to lead the charge against mental health disorders that can debilitate their student populations (Dupéré et al., 2018). Greenberg, Domitrovich Weissberg, and Durlak (2017) finds that schools can become the solution to a public health crisis slowly looming. Essentially, schools are the critical link between childhood and adulthood that could potentially thwart greater health consequences later in life.

The problem, however, exists with the lack of training and continued support. Educators who look to implement mindfulness programs must carefully consider whether the program will be sustainable and used appropriately within a school context (Lawlor, 2014). Several models of mindfulness-based curriculum are only available for certain grades. The needs of one school may also differ from the needs of another within the same school district. There are ongoing

predicaments with the timing of mindfulness-based approaches, developmental considerations, and instructor training, experience, and competency (Greenberg, 2010). "To develop mindfulness however—a process of human development—is not like other cookie cutter curriculums that can be learned in a day, outlined in a resource guide and then be brought into a classroom using a transmissive approach" (Meiklejohn et al., 2012, p.297).

The systemic curriculum may also become an obstacle when teaching mindfulness in the classroom. As additional content has made its way into the lesson planning, teachers may find that there is less time to cover material required for standardized testing and exams. In an entrepreneurship phenomenological study, teachers cited that they do not hone the entrepreneurial skills of their students in particular areas (such as critical thinking and problem-solving) because the content they must cover is greater than the allotted time (Aladağ, 2017). This is similar to Katılmış' (2017) who reported that teachers often found it difficult to infuse values education into their lessons because of a "busy curriculum".

While the field of mindfulness in education continues to grow, Lawlor (2014) states that teachers need to be continual consumers of research and become critical consumers prior to implementing any programs. Teachers also have an obligation to both the students and the district by ensuring that content knowledge and pedagogy are up-to-date and reflect current best practices: "Teachers do seem to have a professional obligation to be cognizant of research that would claim to offer new knowledge about the tasks that they are engaged in" (Roberts, 1994, p.25). Only when teachers take an initiative of their own training will they truly be able to assist the students they serve.

Conclusion

Both Husserl and Heidegger were instrumental in bringing phenomenology to the mainstream researchers and unlike other research methods, phenomenology is often difficult to understand when utilizing it for the first time (Yüksel & Yıldırım, 2015). There are two popular methods of phenomenological research: transcendental (descriptive) and hermeneutics (interpretive). Smith, Flowers, and Larkin (2012) make a compelling argument that researchers using interpretive phenomenology engage in double hermeneutics because they are often trying to make sense of the phenomena while also trying to make sense of the participants while the participants themselves are *also* making sense of the phenomena. Both forms of phenomenology try to find the essence of the phenomenon. "This means that ultimately, phenomenology is something you must do, as an inner activity, and it is the reason why Husserl often said that one could not really understand his philosophy by merely reading it" (Østergaard et al., 2008, p.95-96).

The comprehension of phenomena is important because it allows an individual to become practical (van Manen, 2016). Educators make strong phenomenological researchers because they are in classrooms that mix the lived experiences of other stakeholders. Roberts (1994) finds that teachers are some of the best researchers particularly in the learning process. Goodwin (2009) suggests that teachers need to see the world the way their students do and presses for greater understanding and empathy on behalf of the students. By performing phenomenological research in educational settings, phenomenology is not only being applied as a philosophy, but becomes an actionable methodology that pedagogical practices may be built upon (Standal, 2014). Mindfulness is the skill of understanding how your mind embodies consciousness, Francesconi and Tarozzi (2012) define this as: learning consciousness and give credit to the

phenomenological method as a way to improve the bodily experiences. As a practice, mindfulness has been in existence since some religions and cultural traditions use it build upon authentic, kind, and insightful experiences (Rechtschaffen, 2014). Recently the mindfulness movement has gained traction among K-12 and higher education for its mental, emotional, and physical benefits. Metacognition, positivity, nonjudgement, and self-regulation are all critical to the learning process among the full spectrum of students. Mindfulness practice has shown positive results with memory development, retention, resilience, and is even successful as a behavioral intervention for at-risk and vulnerable adolescents. Increases in cognitive functioning and improved emotional regulation translate into higher levels of well-being, social competence, and academic achievement (Waters et al., 2015). The benefits that come from decreased levels of stress, anxiety, and depression are measurable and replicable.

> What people learn during meditative courses, for instance, is nothing miraculous, but something very concrete and pragmatic, that is, the way to stay in the *lebenswelt*; people usually learn to look at the world in a different way, to perceive differently, to improve their intentional skills, changing their gaze, and so switching from experience to *lived experience*, where the subject is fully present and can better appreciate what is going on (Francesconi & Tarozzi, 2012, p.273).

Studies involving both a student and teacher population is useful because it demonstrates how mindfulness-based interventions can target all stakeholders in a school setting (Gouda et al., 2016). Changing attitude and behavior is often the role of an educator or school-based counselor, often this cannot be achieved without support from home or external sources. K-12 teachers face a plethora of stressors every day, yet few are given the training to deal with such issues (Meiklejohn et al., 2012). Studies such as Lam's (2016) are viable because it examines school-based mindfulness beyond school hours. In Schwind et al.'s (2016) study, course facilitators

mentioned to researchers they felt mindfulness practice supported students as they dealt with potentially difficult course topics, or how it helped students engage more completely in the subject. Feedback should also be required from teachers and facilitators of mindfulness, particularly since each course or caseload works with participants from differing backgrounds.

Phenomenology and education go hand-in-hand as teachers are often reminding students to "bracket" their own beliefs and remain open-minded (Moustakas, 1994). Teachers are considered experts in their classrooms and the masters of the content they teach, it is therefore also imperative for the purposes of professional development and improvement that teachers are held to the same standards of remaining open-minded. Some may state that the concept of the epoché is not relevant to education because the teacher's role in the learning process is constantly evolving and as teachers their experiences are just as critical to the student learning process as the students' experience. Moustakas (1994) reminds us that since teachers are in a position of power, "power affects the relationship to self and others" (p. 63) and teachers inherently have the capabilities to exert influence, knowledge, and control over others.

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Appendix B

Problem Statement

In today's educational arena, teachers are given responsibilities that encompass dozens of tasks that reach far outside the scope of instruction of content area material. They are responsible for planning and facilitating lessons in their respective subject matter, assisting students who have varying degrees of academic and social ability, disciplining students who are negatively impacting the classroom environment, interacting with guidance counselors and parents, and also are seen as valuable assets when promoting student engagement and well-being (Kyte, 2016). In addition to this extensive list, teachers are constantly being asked to take on new workloads and challenges such as new school-wide initiatives yet are rarely given the tools and training to be confident and effective, thus promoting negative experiences. These negative experiences can cause teacher burnout, which is a problem for the individual teacher, as well as the students, and the entire school district (Avanzi et al., 2018).

A very promising initiative in schools to enhance the teacher experience, while also positively impacting students—is the implementation of a mindfulness curriculum, as it has the capability to promote the well-being and personal experiences of all stakeholders within a school (Meiklejohn et al., 2012). Forty years of mindfulness research, a component of positive psychology, shows it can improve the social-emotional and academic growth of teachers and their students (Davenport & Pagnini, 2016). The support for mindfulness programs in schools is growing, but with increased enthusiasm, it is critical that teachers are given the support they need so they can successfully teach such curriculum. If individuals do not believe they have the skills to be successful, they will struggle committing to their work tasks, and the quality and amount of mental effort put in will also be affected (Clark & Estes, 2008).

Teacher's wanting to influence their students need to be confident in their subject matter as well as motivated to teach it. Teachers with higher self-efficacy have shown they are more open to new ideas and willing to experiment with new teaching methods to positively affect

student learning (Tschannen-Moran & Hoy, 2001). The problem addressed in this study was the

lack of clear information on teacher training and strategies used to effectively teach mindfulness-

based stress reduction (MSBR). This problem was important to address because without proper

implementation of mindfulness-based interventions, all stakeholders cannot reap the benefits of

the content.

Appendix C

Additional Methods

Appendix C1

Letter of Approval from the Superintendent

Hunterdon Central Regional High School

84 Route 31, Flemington, New Jersey 08822-1239   Suzanne J. Cooley
Main Number: (908) 782-5727   Principal
 9/10 Campus FAX: (908) 788-6745
11/12 Campus FAX: (908) 284-7230

From: Dr. Jeffrey Moore, Ed.D. Superintendent
Email: jeffrey.moore@hcrhs.org
Date: Thursday, February 8, 2018

To: Institutional Review Board
School of Graduate Studies and Research
California University of Pennsylvania
250 University Avenue
California, PA 15419

Dear Cal U IRB,

    The purpose of this letter is to grant Kaman Hung, at the California University of Pennsylvania permission to conduct research at Hunterdon Central Regional High School. The project titled, "*Pedagogical Practices Employed Among Public School Health & Physical Education Teachers Implementing Mindfulness-Based Stress Reduction to Adolescents: A Phenomenological Study*" entails examining the different teaching methods, practices, and experiences of health and physical education teachers in the context of their own classrooms when it comes to mindfulness-based stress reduction.

    It will involve one-on-one interviews and observations with health and physical education teachers. Teachers will be asked a series of questions permitting the researcher to gain an understanding of their current mindfulness practices, and they will be observed on how these practices are infused into the curriculum, and how the teachers experience mindfulness in pedagogy.

    After review of the study protocol, I do hereby grant permission for Kaman Hung to conduct the research title "*Pedagogical Practices Employed Among Public School Health & Physical Education Teachers Implementing Mindfulness-Based Stress Reduction to Adolescents: A Phenomenological Study*" at Hunterdon Central Regional High School.

Sincerely,

Jeffrey Moore

Dr. Jeffrey Moore, Ed.D.
Superintendent

Appendix C2

IRB Review Request

Proposal Number
_____
Date Received
_____

California University of Pennsylvania

IRB Review Request

Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects

Submit this form to instreviewboard@calu.edu or Campus Box #109

Project Title: **Pedagogical Practices Employed Among Public School Health & Physical Education Teachers Implementing Mindfulness-Based Stress Reduction to Adolescents: A Phenomenological Study**

Researcher/Project Director: **Kaman Christopher Hung**

Phone # **(848)-219-5459**   *E-mail Address* **hun5255@calu.edu**

Faculty Sponsor (if researcher is a student) **Dr. Carol Biddington (biddington@calu.edu)**

Department **Exercise Science and Sport Studies**

Anticipated Project Dates **April 2018** *to* **April 2019**

Sponsoring Agent (if applicable) _____

Project to be Conducted at **HCRHS School District**

Project Purpose: ☐ *Thesis*   ☐ *Research*   ☐ *Class Project*   ☑ *Other/ dissertation*

Keep a copy of this form for your records.

Required IRB Training

All researchers must complete an approved Human Participants Protection training course. The training requirement can be satisfied by completing the CITI (Collaborative Institutional Training Initiative) online course at http://www.citiprogram.org New users should affiliate with "California University of Pennsylvania" and select the "All Researchers Applying for IRB Approval" course option. A copy of your certification of training must be attached to this IRB Protocol. If you have completed the training within the past 3 years and have already provided documentation to the IRB, please provide the following:

Previous Project Title _____

Date of Previous Project IRB Approval _____

SUMMARY OF THE PROJECT

1. *Provide an overview of your project-proposal describing what you plan to do and how you will go about doing it. Include any hypothesis(ses)or research questions that might be involved and explain how the information you gather will be analyzed. All items in the Review Request Checklist, (see below) must be addressed.*

Mindfulness falls under the umbrella of social and emotional learning (SEL). In many school districts this is part of character education. The purpose of this study is to examine the mechanisms of infusing mindfulness-based interventions and mindfulness-based stress reduction practices into their pedagogy and gain insight into a teacher's lived experiences.

Using a qualitative phenomenological approach, the research will seek to answer these questions and distill them down into the essence of how mindfulness is experienced by health and physical education teachers who are required to teach it:
   Q1. What content do teachers use when teaching mindfulness?
   Q2. What mindfulness methods of delivery, length and frequency of delivery do these teachers use?
   Q3. How have mindfulness-based interventions (MBIs) impacted your teaching?

The research plans to interview between 5 and 20 teachers on how they infuse mindfulness into the school's evolving 21st century curriculum. The interviews will take place in-person between April 2018 and June 2018 on school grounds either during lunch or afterschool periods to minimize distractions and permit teachers the use of their preparation "prep" time. Interviews will last between 30-50 minutes and will follow a semi-structured format. These interviews will be audio recorded and transcribed.

The qualitative research will:

Examine the mechanisms of infusing mindfulness-based interventions and mindfulness-based stress reduction practices into their pedagogy and gain insight into a teacher's lived experiences

Methods & Research Design:

The study will employ a qualitative transcendental phenomenological design which will take place on-site at the High School. The school is predominantly white, suburban school district, with above average socio-economic development—the generalizability of this study is therefore limited to those same school districts with similar demographics.

Health and physical education teachers in the 9th and 10th grade were trained on MBSR techniques using the *Learning to BREATHE* (Broderick, 2013) curriculum in the summer of 2017 during professional in-service days. All teachers across the 9th and 12th grade health and physical education staff have been provided the same content for curricular and instructional purposes.

The participants involved in this study will be 20 health and physical education teachers ranging from 2 to 35 years in experience and range from 23 to 56 years old. These teachers are course instructors for a variety of health and physical education courses beginning in 9th grade: human sexuality, drug, alcohol, and nutrition education; 10th grade: driver's education and European team sports; 11th grade, junior health education and individual sports and fitness; to 12th grade: senior health education and adventure education. Health and physical education teachers are broken down into teams of five with some teachers teaching across multiple grade levels and one designated teacher working with the adapted physical education course.

The study will examine the different teaching methods, practices, and experiences of health and physical education teachers in the context of their own classrooms when it comes to MBSR.

Procedures

The research will take the various steps to complete: (1) the researcher has obtained permission from the superintendent of the school district to perform interviews and observations of teachers only. (2) The researcher will send an email requesting volunteers. The researcher is looking to get at least 12 participants to volunteer to be interviewed and observed. (3) The researcher will obtain written informed consent from each participant. (4) The researcher will conduct the research in a primary interview, secondary interview, classroom observation, tertiary interview format for each teacher. Interviews will be recorded and confidentiality of those interviews will be discussed with each participant.

(5) The first interview will collect biographical data and pre-existing knowledge on mindfulness practice and personal experiences and set to collect data for the first research question: "What content do you use for teaching mindfulness". (6) The second interview will ask questions on delivery, length, and frequency, as well as the implementation, and personal impact of teaching mindfulness. The second interview seeks to answer the second and third research questions of: "What mindfulness methods of delivery, length, and frequency of delivery to you use?" and "How have mindfulness-based interventions (MBIs) impacted your teaching?"

(7) The observation will take the form of field notes and only the actions, statements, and questions performed by a teacher will be written down. No audio or video recording will occur. The notes will be written into a narrative format and coded along with the transcriptions of the interviews during phenomenological analysis.

The direct comments and activity will then be summarized into a separate column for data management and coding purposes.

(8) The third interview is the final interview and will occur after the first two interviews and the observation. The third interview is more reflective in nature and seeks to answer all three research questions once again with the intent of going deeper while the participant reflects on his or her first two interviews and observed classroom lesson. It will ask the participant to reflect on his or her own growth and evolution as a mindfulness-based practitioner.

The one-on-one interviews with health and physical education teachers will permit the researcher to gain an understanding of their current mindfulness practices and how these practices are infused into the curriculum as well as their personal and professional development as a mindfulness-based practitioner. Various teachers employ different techniques from a variety of curricula since the school district provides flexibility to use whatever methods educators deem acceptable. Teachers will also be asked to be observed for one class during which mindfulness-based interventions are employed.

Teachers have a number of resources available to them including professional development on mindfulness-based stress reduction strategies specifically geared to high school-aged students and personal well-being.

Data Analysis:

The data analysis will be conducted using Moustakas' (1994) approach which follows three phases: phenomenological reduction, imagination variation, and essence.

Prior to beginning: "Bracketing" and familiarization with the data.

The researcher will have to "bracket" his own personal beliefs, prejudgments, and predispositions and create an epoché so that this does not conflict with the data reduction. Verbal data will need to be transcribed word-for-word into a database or spreadsheet document that is easily searchable.

Phenomenological Reduction. This approach requires that responses be electronically recorded and then follows a seven-step order:

Step 1: *Horizontalization and listing all relevant expressions.* Once interviews have been transcribed, the primary researcher will *horizontalize* the data and highlight "significant statements," sentences, and/or quotes that will provide some insight on mindfulness pedagogy. Yüksel and Yıldırım (2015) state that all information should be treated with equal value. During this stage, researchers will remove any expressions that are irrelevant to the study.

Step 2: *Reduction of experiences.* The horizontal statements must be split into meaningful units so that each statement only has one identifying theme. Creswell (2013) refers to *meaning units* as *themes*.

Step 3: *Thematic clustering.* The next stage in the data analysis process will be to *cluster* those statements according to themes in an effort to find meaning. This step is defined by Moustakas (1994) as the "*core themes of the experience*" (p.121).

Step 4: *Comparison of multiple data sources.* This stage involves comparing the thematic clusters with field notes from observations or other data (Yüksel & Yıldırım, 2015). Since this study will use observations, then this stage would be relevant to ensure that data sources are accurate and relevant. This step will also assist with the study's validity.

Step 5: *Crafting individual textural descriptions*. Once these themes are produced, the fifth step will involve a summary or *textural* description of what participants experienced. At this stage, the researcher will write a description of *what* was experienced by the participants in the study (Creswell, 2013).

Imagination Variation. This phase is also called a structural description and it involves how participants experienced the phenomenon in terms of the conditions, situations, or context (Creswell, 2013, p.60).

Step 6: *Crafting structural textural descriptions.* During this step the researcher will provide a *structural* description—this includes context cues that are taken from the environment that influence how participants may experience mindfulness in their classrooms, these are based off the atmosphere of the environment and it is interpreted by the researcher. According to Moustakas (1994), this involves examining all possible meanings, looking at different perspectives, and changing frames of references about the phenomenon. Essentially, this is a description of *how* the phenomenon occurred (Creswell, 2013). In the context of this study, the researcher will provide organizational and spatial descriptors of the mindfulness sessions.

Step 7: *Construction of composite structural descriptions.* During this stage the researcher will combine both the individual and the structural textural descriptions to formulate a composite description (Creswell, 2013).

Essence. During this stage, the descriptions are synthesized into an expression and distills all the narratives of the experiences into a whole (Yüksel & Yıldırım, 2015). The *essence* of a phenomenon includes: epoché or bracketing, significant statements, meaning units, textural descriptions, and structural descriptions (Creswell, 2013).

Validity and Reliability

Creswell and Poth (2018) recommend that for reliable data analysis to occur, the researcher must "[include] others beyond the researcher and those involved in the research"

(p. 262). Merriam and Tisdell (2016) state that "Strategies that a qualitative research can use to ensure consistent and dependability or reliability are triangulation, peer examination, investigators position, and the audit trail." (p. 252). Creswell and Poth (2018) explain that an *audit trail* is the ability of the researcher to enable an external audit by a general consultant or auditor that has no connection to the study. This particular party would provide feedback on whether the methods and the data support the conclusion of the study (Creswell & Poth, 2018).

This study will utilize Creswell and Poth's (2018) "*reliability and perspectives procedures*" (p. 264-266). First the researcher will have to *establish a common platform for coding and develop a preliminary code list.* Next the researcher will include additional support with a codebook and *share the codebook among coders.* For the third step, the researcher will *apply the codebook across additional transcripts, and compare coding across multiple researchers.* The fourth step will involve the researcher to *assess and report the intercoder agreement among researchers.* Because of the ongoing nature and evolution of the data analysis it is important to *revise and finalize the codebook to inform further coding.* Triangulation is the process of using multiple sources of data to allow for cross-checking— this study incorporates multiple interviews and observations from various participants.

2. *Section 46.11 of the Federal Regulations state that research proposals involving human subjects must satisfy certain requirements before the IRB can grant approval. You should describe in detail how the following requirements will be satisfied. Be sure to address each area separately. (text boxes will expand to fit responses)*

    a. *How will you insure that any risks to subjects are minimized? If there are potential risks, describe what will be done to minimize these risks. If there are risks, describe why the risks to participants are reasonable in relation to the anticipated benefits.*

> There are minimal potential risks to the participants. Teachers are pressured in no way to participate in the study and may choose not to be interviewed.
>
> The one-on-one interviews may produce a sense of discomfort particularly with questions that ask about teacher practice. Teachers may not feel comfortable sharing their techniques or may wish to understand if the data/transcriptions from the interview will be used by school administration. The interviewing itself will take valuable time out of the teachers' already busy schedule. Teachers may withdraw from participation at any time.
>
> Teachers may feel there is something negative to say about an initiative whereby the administration will become vindictive and make their work unpleasant. To guarantee that teachers are in a safe environment, these recorded interviews will not be available to anyone except the primary researcher and the dissertation chair. To ensure confidentiality, when the final data analysis is conducted, the participant names will be swapped out with pseudonyms. Full audio recordings and transcripts will continue to be unavailable.
>
> The benefits to participating in this research will far outweigh the minimal risks. The administration of the school district would like to know how mindfulness-based stress reduction is being perceived in the school district by teachers and the lived experiences of the teachers.

    b. *How will you insure that the selection of subjects is equitable? Take into account your purpose(s). Be sure you address research problems involving vulnerable populations such as children, prisoners, pregnant women, mentally disabled persons, and economically or educationally disadvantaged persons. If this is an in-class project describe how you will minimize the possibility that students will feel coerced.*

> A purposive sample will be used. The high school is considered "regional", several school districts feed into the high school and there are over 430 teaching staff at the school. The district hires 21 health and physical education staff, each with varying levels of expertise and ability. Since all of the subjects will be selected to be interviewed as part of a purposeful sample, this ensures a fair selection.
>
> No coercion can occur because the researcher is not in a supervisory role. Teachers will be reminded by the researcher that participation in the study is optional.

    c. *How will you obtain informed consent from each participant or the subject's legally authorized representative and ensure that all consent forms are appropriately documented? Be sure to attach a copy of your consent form to the project summary.*

The researcher will provide an Informed Consent Form (Appendix C5) to all health and physical education teachers. Teachers will be asked to agree to be recorded so that interview notes may be transcribed and agree to be observed between April and June. The researcher will ask for a mutually convenient time of no more than 30 minutes. Since the school day has a 50-minute lunch built in, some consent forms and biographical interviews could be collected during this time. The researcher will collect the consent forms and begin setting up time slots with teachers either during lunch or afterschool. These informed consent forms will be distributed to teachers when the researcher meets with them in person during an introductory meeting. These forms will be in hard copy and will scanned into the computer and kept in an online storage system (Dropbox).

d. *Show that the research plan makes provisions to monitor the data collected to insure the safety of all subjects. This includes the privacy of subjects' responses and provisions for maintaining the security and confidentiality of the data.*

Teacher experiences and anecdotal accounts of mindfulness in the classrooms may naturally come to mind, however these are personal experiences. The data and the consent forms will be stored online in a secure location requiring password protection off school premises using a California University of Pennsylvania cloud account. The results of this study may be published but identities will not be revealed. Only aggregate data and pseudonyms will be reported. Data that is collected cannot be accessible without a password and access to the online cloud. Only the researcher and the dissertation adviser will have access to the data.

3. *Check the appropriate box(es) that describe the subjects you plan to target.*

☑ Adult volunteers	☐ Mentally Disabled People
☐ CAL University Students	☐ Economically Disadvantaged People
☐ Other Students	☐ Educationally Disadvantaged People
☐ Prisoners	☐ Fetuses or fetal material
☐ Pregnant Women	☐ Children Under 18
☐ Physically Handicapped People	☐ Neonates

4. *Is remuneration involved in your project? Yes or ☑ No. If yes, Explain here.*

There is no remuneration at all.

5. *Is this project part of a grant? ☐ Yes or ☑ No If yes, provide the following information:*

NO

Title of the Grant Proposal: N/A

Name of the Funding Agency: N/A

Dates of the Project Period: N/A

6. *Does your project involve the debriefing of those who participated? ☐ Yes or ☑ No*

If Yes, explain the debriefing process here.

No debriefing is needed.

7. *If your project involves a questionnaire or interview, ensure that it meets the requirements indicated in the Survey/Interview/Questionnaire checklist.*

The interview questions and scripts (Appendix C6, C7, & C9) meet all the requirements indicated in the survey/interview/questionnaire checklist.

SUMMARY OF ALL APPENDIX C MATERIALS

C1: Letter of Approval from the Superintendent
Permission to interview school staff from the superintendent.

C2: IRB Review Request
Paperwork included as part of the request to use human subjects for research.

C3: Certificate of IRB Training

C4: Recruitment Email For Study Participants
Emailing seeking participation from staff members in a public high school district.

C5: Informed Consent Form
These forms require the parents to sign off before any data or treatment may be administered. It provides details on the study as well as the benefits and harms of participating. The consent form will be provided by the research to the teachers of randomly selected classes.

C6: Interview Questions & Script
These are questions designed by the researcher to be used to gain further knowledge on the qualitative effects of mindfulness-based stress reduction programming during the school day.

C7: Interview Questions & Script
These are questions designed by the researcher to be used to gain further knowledge on the qualitative effects of mindfulness-based stress reduction programming during the school day.

C8: Observation/Field Note Guide
Permission to interview school staff from the superintendent

C9: Interview Questions & Script
These are questions designed by the researcher to be used to gain further knowledge on the qualitative effects of mindfulness-based stress reduction programming during the school day.

References

Broderick, P. C. (2013). *Learning to breathe: A mindfulness curriculum for adolescents to cultivate emotion regulation, attention, and performance*. Oakland, CA: New Harbinger.

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches.* Los Angeles, CA: SAGE.

Creswell, J. W. & Poth, C. N. (2018). *Qualitative inquiry & research design* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Merriam, S. B. & Tisdell, E. J. (2016). *Qualitative research: The guide to design and implementation* (4th Eds.). San Francisco, CA: Jossey-Bass.

Moustakas, C. (1994). *Phenomenological research methods.* Thousand Oaks, CA: Sage

Yüksel, P., & Yıldırım, S. (2015). Theoretical frameworks, methods, and procedures for conducting phenomenological studies. *Turkish Online Journal of Qualitative Inquiry, 6*(1). http://dx.doi.org/10.17569/tojqi.59813

California University of Pennsylvania Institutional Review Board
Survey/Interview/Questionnaire Consent Checklist (v021209)

This form MUST accompany all IRB review requests

Does your research involve ONLY a survey, interview or questionnaire?
YES—Complete this form
NO—You MUST complete the "Informed Consent Checklist"—skip the remainder of this form

Does your survey/interview/questionnaire cover letter or explanatory statement include:
[✔] (1) Statement about the general nature of the survey and how the data will be used?

[✔] (2) Statement as to who the primary researcher is, including name, phone, and email address?

[✔] (3) FOR ALL STUDENTS: Is the faculty advisor's name and contact information provided?

[✔] (4) Statement that participation is voluntary?

[✔] (5) Statement that participation may be discontinued at any time without penalty and all data discarded?

[✔] (6) Statement that the results are confidential?

[✔] (7) Statement that results are anonymous?

[✔] (8) Statement as to level of risk anticipated or that minimal risk is anticipated? (NOTE: If more than minimal risk is anticipated, a full consent form is required—and the Informed Consent Checklist must be completed)

[_] (9) Statement that returning the survey is an indication of consent to use the data?

[✔] (10) Who to contact regarding the project and how to contact this person?

[✔] (11) Statement as to where the results will be housed and how maintained? (unless otherwise approved by the IRB, must be a secure location on University premises)

[✔] (12) Is there text equivalent to: "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)?

[_] (13) FOR ELECTRONIC/WEBSITE SURVEYS: Does the text of the cover letter or explanatory statement appear before any data is requested from the participant?

[_] (14) FOR ELECTONIC/WEBSITE SURVEYS: Can the participant discontinue participation at any point in the process and all data is immediately discarded?

California University of Pennsylvania Institutional Review Board
Informed Consent Checklist (v021209)

This form MUST accompany all IRB review requests

Does your research involve ONLY a <u>survey</u>, <u>interview</u>, or <u>questionnaire</u>?
YES—DO NOT complete this form. You MUST complete the "Survey/Interview/Questionnaire Consent Checklist" instead.
NO—Complete the remainder of this form.

1. **Introduction** (check each)
    [_] (1.1) Is there a statement that the study involves research?
    [_] (1.2) Is there an explanation of the purpose of the research?

2. **Is the participant.** (check each)
    [_] (2.1) Given an invitation to participate?
    [_] (2.2) Told why he/she was selected.
    [_] (2.3) Told the expected duration of the participation.
    [_] (2.4) Informed that participation is voluntary?
    [_] (2.5) Informed that all records are confidential?
    [_] (2.6) Told that he/she may withdraw from the research at any time without penalty or loss of benefits?
    [_] (2.7) 18 years of age or older? (if not, see Section #9, Special Considerations below)

3. **Procedures** (check each).
    [_] (3.1) Are the procedures identified and explained?
    [_] (3.2) Are the procedures that are being investigated clearly identified?
    [_] (3.3) Are treatment conditions identified?

4. **Risks and discomforts**. (check each)
    [_] (4.1) Are foreseeable risks or discomforts identified?
    [_] (4.2) Is the likelihood of any risks or discomforts identified?
    [_] (4.3) Is there a description of the steps that will be taken to minimize any risks or discomforts?
    [_] (4.4) Is there an acknowledgement of potentially unforeseeable risks?
    [_] (4.5) Is the participant informed about what treatment or follow up courses of action are available should there be some physical, emotional, or psychological harm?
    [_] (4.6) Is there a description of the benefits, if any, to the participant or to others that may be reasonably expected from the research and an estimate of the likelihood of these benefits?
    [_] (4.7) Is there a disclosure of any appropriate alternative procedures or courses of treatment that might be advantageous to the participant?

5. **Records and documentation**. (check each)
    [_] (5.1) Is there a statement describing how records will be kept confidential?
    [_] (5.2) Is there a statement as to where the records will be kept and that this is a secure location?
    [_] (5.3) Is there a statement as to who will have access to the records?

6. For research involving more than minimal risk (check each),
[_] (6.1) Is there an explanation and description of any compensation and other medical or counseling treatments that are available if the participants are injured through participation?
[_] (6.2) Is there a statement where further information can be obtained regarding the treatments?
[_] (6.3) Is there information regarding who to contact in the event of research-related injury?

7. Contacts.(check each)
[_] (7.1) Is the participant given a list of contacts for answers to questions about the research and the participant's rights?
[_] (7.2) Is the principal researcher identified with name and phone number and email address?
[_] (7.3) FOR ALL STUDENTS: Is the faculty advisor's name and contact information provided?

8. General Considerations (check each)
[_] (8.1) Is there a statement indicating that the participant is making a decision whether or not to participate, and that his/her signature indicates that he/she has decided to participate having read and discussed the information in the informed consent?
[_] (8.2) Are all technical terms fully explained to the participant?
[_] (8.3) Is the informed consent written at a level that the participant can understand?
[_] (8.4) Is there text equivalent to: "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)

9. Specific Considerations (check as appropriate)
[_] (9.1) If the participant is or may become pregnant is there a statement that the particular treatment or procedure may involve risks, foreseeable or currently unforeseeable, to the participant or to the embryo or fetus?
[_] (9.2) Is there a statement specifying the circumstances in which the participation may be terminated by the investigator without the participant's consent?
[_] (9.3) Are any costs to the participant clearly spelled out?
[_] (9.4) If the participant desires to withdraw from the research, are procedures for orderly termination spelled out?
[_] (9.5) Is there a statement that the Principal Investigator will inform the participant or any significant new findings developed during the research that may affect them and influence their willingness to continue participation?
[_] (9.6) If the participant is less than 18 years of age? If so, a parent or guardian must sign the consent form and assent must be obtained from the child
    [_] Is the consent form written in such a manner that it is clear that the parent/guardian is giving permission for their child to participate?
    [_] Is a child assent form being used?
    [_] Does the assent form (if used) clearly indicate that the child can freely refuse to participate or discontinue participation at any time without penalty or coercion?
[_] (9.7) Are all consent and assent forms written at a level that the intended participant can understand? (generally, 8th grade level for adults, age-appropriate for children)

California University of Pennsylvania Institutional Review Board
Review Request Checklist (v021209)

This form MUST accompany all IRB review requests.
Unless otherwise specified, ALL items must be present in your review request.

Have you:
 [✓] (1.0) FOR ALL STUDIES: Completed ALL items on the Review Request Form?
Pay particular attention to:
 [✓] (1.1) Names and email addresses of all investigators
   [N/A] (1.1.1) FOR ALL STUDENTS: use only your CalU email address)
   [✓] (1.1.2) FOR ALL STUDENTS: Name and email address of your faculty
   research advisor
 [✓] (1.2) Project dates (must be in the future—no studies will be approved which
 have already begun or scheduled to begin before final IRB approval—NO
 EXCEPTIONS)
 [✓] (1.3) Answered completely and in detail, the questions in items 2a through 2d?
   [✓] 2a: NOTE: No studies can have zero risk, the lowest risk is "minimal
   risk". If more than minimal risk is involved you MUST:
    [✓] i. Delineate all anticipated risks in detail;
    [✓] ii. Explain in detail how these risks will be minimized;
    [✓] iii. Detail the procedures for dealing with adverse outcomes due to
    these risks.
    [✓] iv. Cite peer reviewed references in support of your explanation.
   [✓] 2b. Complete all items.
   [✓] 2c. Describe informed consent procedures in detail.
   [✓] 2d. NOTE: to maintain security and confidentiality of data, all study
   records must be housed in a secure (locked) location ON UNIVERSITY
   PREMISES. The actual location (department, office, etc.) must be specified
   in your explanation and be listed on any consent forms or cover letters.
 [✓] (1.4) Checked all appropriate boxes in Section 3? If participants under the age of
 18 years are to be included (regardless of what the study involves) you MUST:
   [✓] (1.4.1) Obtain informed consent from the parent or guardian—consent
   forms must be written so that it is clear that the parent/guardian is giving
   permission for their child to participate.
   [✓] (1.4.2) Document how you will obtain assent from the child—This must
   be done in an age-appropriate manner. Regardless of whether the
   parent/guardian has given permission, a child is completely free to refuse to
   participate, so the investigator must document how the child indicated
   agreement to participate ("assent").
 [✓] (1.5) Included all grant information in section 5?
 [_] (1.6) Included ALL signatures?

[_] (2.0) FOR STUDIES INVOLVING MORE THAN JUST SURVEYS, INTERVIEWS,
OR QUESTIONNAIRES:
 [_] (2.1) Attached a copy of all consent form(s)?
 [_] (2.2) FOR STUDIES INVOLVING INDIVIDUALS LESS THAN 18 YEARS OF
 AGE: attached a copy of all assent forms (if such a form is used)?

[_] (2.3) Completed and attached a copy of the Consent Form Checklist? (as appropriate—see that checklist for instructions)

[✓] (3.0) FOR STUDIES INVOLVING ONLY SURVEYS, INTERVIEWS, OR QUESTIONNAIRES:

[✓] (3.1) Attached a copy of the cover letter/information sheet?

[✓] (3.2) Completed and attached a copy of the Survey/Interview/Questionnaire Consent Checklist? (see that checklist for instructions)

[✓] (3.3) Attached a copy of the actual survey, interview, or questionnaire questions in their final form?

[_] (4.0) FOR ALL STUDENTS: Has your faculty research advisor:

[_] (4.1) Thoroughly reviewed and approved your study?

[_] (4.2) Thoroughly reviewed and approved your IRB paperwork? including:

[_] (4.2.1) Review request form,

[_] (4.2.2) All consent forms, (if used)

[_] (4.2.3) All assent forms (if used)

[_] (4.2.4) All Survey/Interview/Questionnaire cover letters (if used)

[_] (4.2.5) All checklists

[_] (4.3) IMPORTANT NOTE: Your advisor's signature on the review request form indicates that they have thoroughly reviewed your proposal and verified that it meets all IRB and University requirements.

[_] (5.0) Have you retained a copy of all submitted documentation for your records?

Project Director's Certification
Program Involving HUMAN SUBJECTS

The proposed investigation involves the use of human subjects and I am submitting the complete application form and project description to the Institutional Review Board for Research Involving Human Subjects.

I understand that Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects. If the Board grants approval of this application, I agree to:

1. Abide by any conditions or changes in the project required by the Board.
2. Report to the Board any change in the research plan that affects the method of using human subjects before such change is instituted.
3. Report to the Board any problems that arise in connection with the use of human subjects.
4. Seek advice of the Board whenever I believe such advice is necessary or would be helpful.
5. Secure the informed, written consent of all human subjects participating in the project.
6. Cooperate with the Board in its effort to provide a continuing review after investigations have been initiated.

I have reviewed the Federal and State regulations concerning the use of human subjects in research and training programs and the guidelines. I agree to abide by the regulations and guidelines aforementioned and will adhere to policies and procedures described in my application. I understand that changes to the research must be approved by the IRB before they are implemented.
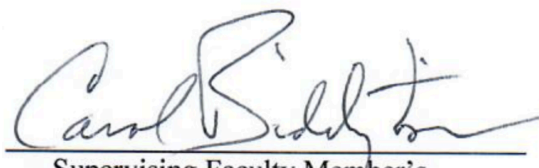
Professional (Faculty/Staff) Research

_____
	Project Director's Signature

Student or Class Research

_____					_____
	Student Researcher's							Supervising Faculty Member's
	Signature									Signature

ACTION OF REVIEW BOARD (IRB use only)

The Institutional Review Board for Research Involving Human Subjects has reviewed this application to ascertain whether or not the proposed project:

1. provides adequate safeguards of the rights and welfare of human subjects involved in the investigations;
2. uses appropriate methods to obtain informed, written consent;
3. indicates that the potential benefits of the investigation substantially outweigh the risk involved.
4. provides adequate debriefing of human participants.
5. provides adequate follow-up services to participants who may have incurred physical, mental, or emotional harm.

☐ Approved[_____] ☐ Disapproved

_____   _____
Chairperson, Institutional Review Board   Date

Appendix C3

Certificates of IRB Training

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Carol Biddington (ID: 1993723)
- **Institution Affiliation:** Northcentral University (ID: 786)
- **Institution Email:** cbiddington@my.ncu.edu
- **Institution Unit:** Education

- **Curriculum Group:** Human Research
- **Course Learner Group:** IRB Required Modules for NCU
- **Stage:** Stage 1 - Basic Course

- **Record ID:** 24807109
- **Completion Date:** 12-Jan-2018
- **Expiration Date:** 12-Jan-2020
- **Minimum Passing:** 85
- **Reported Score*:** 99

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
History and Ethical Principles - SBE (ID: 490)	09-Jan-2018	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	09-Jan-2018	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	09-Jan-2018	5/5 (100%)
Assessing Risk - SBE (ID: 503)	09-Jan-2018	5/5 (100%)
Informed Consent - SBE (ID: 504)	09-Jan-2018	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	09-Jan-2018	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	09-Jan-2018	5/5 (100%)
Research with Children - SBE (ID: 507)	10-Jan-2018	5/5 (100%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	10-Jan-2018	5/5 (100%)
International Research - SBE (ID: 509)	10-Jan-2018	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	10-Jan-2018	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	10-Jan-2018	5/5 (100%)
Cultural Competence in Research (ID: 15166)	10-Jan-2018	5/5 (100%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	10-Jan-2018	5/5 (100%)
Consent and Subject Recruitment Challenges: Remuneration (ID: 16881)	10-Jan-2018	5/5 (100%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	11-Jan-2018	4/4 (100%)
Gender and Sexuality Diversity (GSD) in Human Research (ID: 16556)	11-Jan-2018	5/5 (100%)
Research with Persons who are Socially or Economically Disadvantaged (ID: 16539)	11-Jan-2018	5/5 (100%)
Research with Subjects with Physical Disabilities & Impairments (ID: 16657)	11-Jan-2018	5/5 (100%)
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	11-Jan-2018	5/5 (100%)
Records-Based Research (ID: 5)	11-Jan-2018	3/3 (100%)
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	11-Jan-2018	3/3 (100%)
Research and HIPAA Privacy Protections (ID: 14)	11-Jan-2018	5/5 (100%)
Data Management (RCR-Basic) (ID: 16600)	12-Jan-2018	5/5 (100%)
Research Misconduct (RCR-Basic) (ID: 16604)	12-Jan-2018	5/5 (100%)
Research, Ethics, and Society (RCR) (ID: 15198)	12-Jan-2018	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS *

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name :** Kaman Hung (ID: 5975439)
- **Institution Affiliation:** California University of Pennsylvania (ID: 1719)
- **Institution Email:** hun5255@cali.edu
- **Institution Unit** Health Sciences
- **Phone:** 8482195459

- **Curriculum Group:** CITI Conflicts of Interest
- **Course Learner Group:** Conflicts of Interest for Project Personnel
- **Stage :** Stage 1 - Stage 1

- **Record ID:** 21506997
- **Completion Date :** 21-Nov-2016
- **Expiration Date :** 20-Nov-2020
- **Minimum Passing:** 80
- **Reported Score*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
CITI Conflict of Interest Course - Introduction (COI-Basic) (ID: 15177)	21-Nov-2016	No Quiz
Financial Conflicts of Interest: Overview, Investigator Responsibilities, and COI Rules (COI-Basic) (ID: 15070)	21-Nov-2016	5/5 (100%)
Institutional Responsibilities as They Affect Investigators (COI-Basic) (ID: 15072)	21-Nov-2016	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing Institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k0701d5c0-35a1-4917-b9e8-790414fab91-21506997

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Web: https://www.citiprogram.org

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 2 OF 2
COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name :** Raman Hung (ID: 5975439)
- **Institution Affiliation:** California University of Pennsylvania (ID: 1719)
- **Institution Email:** hun5255@cal.edu
- **Institution Unit** Health Sciences
- **Phone:** 8482195459

- **Curriculum Group:** CITI Conflicts of Interest
- **Course Learner Group:** Conflicts of Interest for Project Personnel
- **Stage :** Stage 1 - Stage 1

- **Record ID:** 21506997
- **Report Date:** 01-Oct-2017
- **Current Score**:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
CITI Conflict of Interest Course – Introduction (COI-Basic) (ID: 15177)	21-Nov-2016	No Quiz
Financial Conflicts of Interest: Overview, Investigator Responsibilities, and COI Rules (COI-Basic) (ID: 15070)	21-Nov-2016	5/5 (100%)
Institutional Responsibilities as They Affect Investigators (COI-Basic) (ID: 15072)	21-Nov-2016	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k0701465d0-35a1-4917-b9e8-7904747dab91-21506997

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

Completion Date 12-Jan-2018
Expiration Date 12-Jan-2020
Record ID 24807109

This is to certify that:

Carol Biddington

Has completed the following CITI Program course:

Human Research (Curriculum Group)
IRB Required Modules for NCU (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Northcentral University

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?waa8278f0-4be5-4e18-bec5-de1116ada19a-24807109

This is to certify that:

Kaman Hung

Has completed the following CITI Program course:

CITI Conflicts of Interest (Curriculum Group)
Conflicts of Interest for Project Personnel (Course Learner Group)
1 - Stage 1 (Stage)

Under requirements set by:

California University of Pennsylvania

Completion Date 21-Nov-2016
Expiration Date 20-Nov-2020
Record ID 21506997

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w0adc6039-a2c0-48c0-99bd-18afe2f25e53-21506997

Appendix C4

Recruitment Email for Study Participants

Subject: Mindfulness Study

April 1st, 2018

Hello [Participant Name]:

I hope you are well. My name is Kaman Hung and I am currently a student at California University of Pennsylvania pursuing a doctoral degree in health science. I have chosen to focus my research on the topic of mindfulness, specifically the phenomenon of the lived experiences of the teacher to better the research in the field of mindfulness *and* education.

The purpose of this research is to examine the mechanisms of infusing mindfulness-based interventions and mindfulness-based stress reduction practices into their pedagogy and gain insight into a teacher's lived experiences. Jennings (2015) states that while there's been a lot of talk about 21st century skills, there are two areas which are not given fair attention: adaptation and resilience. Hassed and Chambers ask that: "If the first question was "What is education?" the second has to be "What is mindfulness?" (p. 5).

For this study, I will go through four steps to attain the data.

1. The **first** step involves a <u>20 to 30-minute one-on-one interview</u> in which an informed consent form will be signed, and your background (teaching experience and biographical data) will be explored.
2. The **second** step will involve a <u>20 to 30-minute one-on-one interview</u> about your understanding of mindfulness, the resources you use, and the strategies you currently implement into your lessons.
3. The **third** step will be an <u>observation of one of your mindfulness sessions</u>. I would like an opportunity to observe and take notes on one of your classes.
4. The **last** step will be a third and final <u>20 to 30-minute one-on-one interview</u> that is more reflective in nature. I will ask you about the mindfulness lesson and ask you to describe your experience to me in regards to implementation and revision of content.

Since you are currently a teacher in the school district and you have been requested by your department supervisor to implement mindfulness-based stress reduction into your lessons, I would like to ask for your participation in my study.

There is minimal risk to you participating in this research study, however, it is also my responsibility to make you aware of such risks. The one-on-one interviews may produce a sense of discomfort particularly with questions that ask you about your practice. You may not feel comfortable sharing your techniques or may wish to understand if the data/transcriptions from the interview will be used by school administration. The interviewing itself will take valuable time out of your already busy schedule.

There are also potential benefits to participating in this study:

- You may gather a better understanding of your own personal mindfulness practices as you will be asked to be reflective in your practice.
- This study may deepen your interest in mindfulness, specifically in educational settings.
- You may contribute valuable information about pedagogy on mindfulness to the profession.
- Results of this research may facilitate professional support regarding mindfulness based curriculum such as in-service opportunities.

However, there may also be no direct benefit to you.

This study has been approved by the California University of Pennsylvania Institutional Review Board (IRB). If you have any other questions about this research study, you may contact the Cal U IRB at instreviewboard@calu.edu.

Because your participation is voluntary, you will not receive remission for your assistance. You may also withdraw from participation at any time. Please know that for the purposes of publication, your name along with any identifying data will not be reproduced at any time and will only reflect pseudonyms.

Should you have and questions or concerns about this email or the research, please feel free to reach out to me by telephone: (848)-219-5459 or by email: hun5255@calu.edu.

Thank you so much for your help with this study. I will be in contact with you over the next few days to gauge your interest. I look forward to speaking with you then.

Sincerely,

Kaman Hung
Doctoral Candidate
California University of Pennsylvania

Appendix C5

Informed Consent Form

Title of Study

Pedagogical Practices Employed Among Public School Health and Physical Education Teachers Implementing Mindfulness-Based Stress Reduction to Adolescents: A Phenomenological Study.

Introduction

You are invited to participate in a research project being conducted by <u>Kaman Hung</u> a faculty member in the Department of Health & Physical Education at High School and a doctoral student at the California University of Pennsylvania.

As part of the high school health and physical education curriculum, mindfulness activities have been infused into regular instruction across 9th through 12th grade physical education and health courses. It is unclear, however, as to the extent these mindfulness-based activities have been used and how the teachers' experiences differ from using these activities.

Purpose

The purpose of this study is to examine the mechanisms of infusing mindfulness-based interventions and mindfulness-based stress reduction practices into their pedagogy and gain insight into a teacher's lived experiences. The goal of the study is to explore the pedagogical practices and techniques that teachers use while following a mindfulness-based stress reduction (MBSR) program. Only health and physical education teachers have been selected for this study since they are currently the only department in the School District to formally include it in their curriculum.

Procedures

You are currently a health and physical education teacher and the school district has opted to use mindfulness practices designed to target social and emotional competencies of *Self-Awareness* and *Self-Management* set forth by the New Jersey Department of Education (http://www.nj.gov/education/students/safety/sandp/sel). This research will only examine qualitative data collected from interviews and observations. The principal researcher will ask open-ended questions. You will have an opportunity to provide insight and outline some practices that you use in your daily lessons. At no point will the researcher make any recommendations, nor should this research intend to persuade you to do any less or more of what you are already doing.

Initial Phase:

1. Twenty teachers have been selected for this study and all teachers that have met the criteria of: physical education/health teacher AND mindfulness classroom teacher have been sent an email.
2. You are here because you have responded to that email and have chosen to participate.
3. The lead researcher will meet with each teacher individually to introduce himself and hand out consent forms. The rationale for the study will be explained to the teachers and any questions will be answered.
4. The researcher will then collect the consent form from each individual teacher after meeting. Teachers are reminded they may refuse at any time to be a part of the study.

Interview #1:

1. Once teachers have completed reading, understanding, and have signed the informed consent form the researcher will initiate the first interview.
2. The lead researcher will remind the teacher that the interview will be audio recorded, however, the audio recording and the transcriptions will be kept confidential with the exception of the primary researcher, dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses.
3. The lead researcher will interview the participant. The questions have been pre-designed and formulated by the researcher, however, there may be follow-up questions.
4. Teachers will be asked questions related to their pedagogy and the content used to teacher MBSR.
5. The researcher will label each interview with an identification number protecting the teacher's identity.
6. Audio recordings will be transcribed.

Interview #2:

1. The second interview will take place 3-to-7 days later. Times will be made by appointment between the lead researcher and the participating teacher.
2. The lead researcher will remind the teacher that the interview will be audio recorded, however, the audio recording and the transcriptions will be kept confidential with the exception of the primary researcher, dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses.
3. The lead researcher will interview the participant. The questions have been pre-designed and formulated by the researcher, however, there may be follow-up questions.
4. Teachers will be asked questions related to their delivery and how mindfulness-based interventions have impacted their teaching practice.
5. The researcher will label each interview with an identification number protecting the teacher's identity.
6. Audio recordings will be transcribed.

Observation:

1. The researcher will schedule a time with the participating teacher to observe a classroom in which mindfulness will be utilized.
2. The researcher will arrive before the start of the class with a laptop and begin recording data in the form of field notes.
3. No audio nor video will be recorded.
4. The goal is the gather data from the teacher in the form of speech and actions that will help provide greater detail and enhance data collection.
5. Once the class session is complete, the researcher will leave.
6. Field notes will be kept confidential with the exception of the primary researcher, dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses.

Interview #3:

1. The third interview will take place 3-to-7 days after the observation. Times will be made by appointment between the lead researcher and the participating teacher.
2. The lead researcher will remind the teacher that the interview will be audio recorded, however, the audio recording and the transcriptions will be kept confidential with the

exception of the primary researcher, dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses.

3. The lead researcher will interview the participant. The questions have been pre-designed and formulated by the researcher, however, there may be follow-up questions.
4. Teachers will be asked questions more reflective in nature that are related to content, delivery, and impact of mindfulness-based stress reduction and interventions. Teachers will have an opportunity to walk through the observed lesson.
5. The researcher will label each interview with an identification number protecting the teacher's identity.
6. Audio recordings will be transcribed.

Conclusion of study:

1. The lead researcher will perform a transcendental phenomenological analysis (Moustakas, 1994) on the data. The data will be reduced (extracting the essential content), then the content will be grouped according to themes. Both individual and structural textural descriptions will be composed and the researcher will be able to determine the essence of mindfulness in the contextual experiences of physical education teachers.

While data collected is not anonymous, at no point will this information reveal the identity of the teacher to any person or organization. Your responses will be kept confidential at all times and when published, all names will be coded according to an identifying number (ID). Only the researcher, the dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses will be able to examine the collected data.

Risks and Discomforts

Besides some experiences of slight discomfort while in a seated position, there is minimal risk associated with this study. The discussion of mindfulness or sharing your pedagogical practice may be uncomfortable to you. We also understand that your time as an educator is valuable.

It may also be difficult to express your opinion to the researcher for worry of information identifying you. If at any time, you are uncomfortable speaking with the researcher you may opt out of the study and the data collected will be destroyed.

Benefits

The benefits to you participating in this study is a greater understanding of your own personal mindfulness practices which may lead to more reflective teaching. The study may also lead to a greater interest in studies involving MBSR in educational settings. The research that you are a part of will also look to be published and will inform the educational and wellness communities of certain techniques that may prove to be more effective than others. However, there may be also be no direct benefit from participating in this study.

Payments to Participants

You will not be compensated for participation in this study.

Right to Refuse or Withdraw

Following your consent, participation in this study remains voluntary. You may also refuse to answer any questions and may withdraw from participation at any time without penalty.

Anonymity of Published Data and Records

No identifying information will be included in the data you provide. Your signed consent form will be kept separate from the data, and nobody will be able to link your responses to them.

Confidentiality of Records and Results

The results of this study may be published but identities will not be revealed. Only aggregate data will be reported and identification numbers. Interview data will be stored online in a secure location requiring password protection off school premises using a California University of Pennsylvania cloud account. Only the primary researcher, dissertation chairperson, the dissertation committee, a data analysis consultant, and two subcontracted coders responsible for data analyses will have access to the data.

Contacts and Questions

The investigator conducting this study is: Kaman Hung.

If you have any questions about this study now or in the future, you may contact the researcher:

Kaman Hung, Health & Physical Education Department
Faculty and Principal Researcher
Email: hun5255@calu.edu
Tel: (848)-219-5459

Dr. Carol Biddington, EdD
Research Advisor
Email: biddington@calu.edu
Tel: (724)-938-4356

Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective 04/01/2018 and expires 3/31/2019.

If you have any questions about your rights as a research participant, you may email the IRB at instreviewboard@calu.edu.

<u>Acceptance & Signature</u>

I have read the information provided above and all of my questions have been answered. I voluntarily agree to the participation in this study. I will receive a copy of this consent form for my information.

_____

Participant Signature

_____

Date

Appendix C6

Interview #1 Script and Questions

Interview Script and Questions

PEDAGOGICAL PRACTICES AMONG PUBLIC SCHOOL HEALTH AND PHYSICAL EDUCATION TEACHERS IMPLEMENTING MINDFULNESS-BASED STRESS REDUCTION TO ADOLESCENTS: A PHENOMENOLOGICAL STUDY

Interview Script #1

Action:
Provide consent form to participant.

Read:
Hello and thank you for meeting me today, I appreciate both your time and participation in this process.

I must inform you that this interview will be audiotaped and transcribed. First, I will ask you a few biographical questions to get to know you a little better. The interview should take no longer than 30 minutes to complete.

During this process, you will be interviewed in person and I may have follow up questions for you. In the event that I need further clarification on something that was mentioned, I will contact you directly either by telephone or email. This interview is the first of three interviews that will be conducted by me—the primary researcher. In addition to the three interviews, you have consented to allowing me to observe one lesson in which you will be implementing a mindfulness-based intervention of your choice.

I will be the sole data collector, recorder, and transcriber in all scenarios. No one else will see the data except for the dissertation chairperson whose contact information is available on the consent form. At times I may have to consult with my dissertation committee about the data I collect. However, I will assign you a pseudonym throughout this process so that your real name is not included.

All field notes, transcriptions, and tape recordings will be stored in a secure off-campus location on a California University of Pennsylvania Cloud account. At the conclusion of this study and at the acceptance of my dissertation from my committee, all research materials will be deleted. Prior to publication, I will ask you to look over your portion of the research notes that I have taken to check for accuracy prior to publishing the study.

At this point please feel free to let me know if you have any questions or concerns.

PART I: BIOGRAPHICAL PROFILE (To be completed by the participant)

Name (will be kept confidential):_____

Email: _____

Age: _____

PART II: ACADEMIC PROFILE (To be completed by the participant)

Highest Degree: BA/BS ❑   MA/MAT/MS/M.Ed ❑   Ed.S/MBA/MPH ❑   Ph.D/Ed.D/JD ❑

GRADUATE EDUCATION

College/University:_____ **Degree**: _____

Major(s): _____ **Minor(s)**: _____

College/University:_____ **Degree**: _____

Major(s): _____ **Minor(s)**: _____

UNDERGRADUATE EDUCATION

College/University:_____ **Degree**: _____

Major(s): _____ **Minor(s)**: _____

Total years teaching experience: _____

Grade level teaching experience (years):

9th _____   10th _____   11th _____   12th _____   Other _____

PART III: INTERVIEW RESEARCH QUESTIONS (To be asked by the researcher)

The following questions will address the research questions and each research question has been broken down into smaller sub-questions to help answer the big questions more completely.

INTERVIEW #1

RESEARCH QUESTION #1:

What content do you use for teaching mindfulness?

1. What was your first impression of mindfulness either during training or from colleagues?
    a. How was mindfulness introduced to you?

2. What were the facilitators/barriers to engaging in mindfulness practice with your students?
    a. What facilitates the need to teach mindfulness-based activity to your students?
    b. What obstacles have you faced it implementing mindfulness-based practices in your classroom?
    c. What are the things that have supported you while implementing mindfulness-based practices in your classroom?

3. Are you familiar with any other mindfulness-based curricula beyond the training that you received at school?
    a. What curriculum or program have you chosen and why did you select this?
    b. Does the school provide you with resources to teach mindfulness? If so, what resources?
    c. Have you sought out additional resources on your own, if so how and why? What were the resources?

RESEARCH QUESTION #2:

What mindfulness methods of delivery, length, and frequency of delivery do you use?

4. How have you incorporated mindfulness sessions into your classes?
    a. What methods do you use to introduce mindfulness to your students?
    b. How long do you spend on mindfulness-based interventions (MBI) in your classes?
    c. How do you set the classroom up for an optimal experience?
    d. What materials do you use to implement MBIs in your classes and why?

RESEARCH QUESTION #3:

How have mindfulness-based interventions (MBIs) impacted your teaching?

5. How are you evaluated on the implementation of a mindfulness program?
    a. Are you familiar with any on-going support in the school district which may help you refine your mindfulness-based teaching practices?

Appendix C7

Interview #2 Script and Questions

Interview Script and Questions

PEDAGOGICAL PRACTICES AMONG PUBLIC SCHOOL HEALTH AND PHYSICAL EDUCATION TEACHERS IMPLEMENTING MINDFULNESS-BASED STRESS REDUCTION TO ADOLESCENTS: A PHENOMENOLOGICAL STUDY

Interview Script #2

Action:
Send a confirmation email to the participant. Meet participant in his or her office during off-school time.

Read:
Hello again. How are you?
Thank you for meeting me again. I appreciate your time and similar to our last meeting, this meeting will be tape recorded and transcribed. I may have you check over the transcript of this interview accuracy later on.

The purpose of this interview it to gather some of your insight as to your past experiences with mindfulness. This interview should last no more than 20 to 30 minutes.

At this point do you have any questions or concerns before we get started?

INTERVIEW #2

(Must be completed between 3-7 days after interview #1)

RESEARCH QUESTION #2:

What mindfulness methods of delivery, length, and frequency of delivery do you use?

1. Mindfulness can be taught through three separate approaches: *Direct*: programs that are directly implemented to impact students; *Indirect*: informal activities developed by teachers who have their own mindfulness practices; and combination of the two (Meiklejohn et al., 2012).
    How do the following approaches inform your teaching practice?
    a. Which approaches do you use and how do you use them?

2. What delivery method do you use to teach mindfulness to your students? Teacher-guided? student-guided? self-guided? technology-guided? or audio-guided?
    a. Why did you select that method?
    b. Do you ever change methods from one class to the next? Why?
    c. Have you used multiple methods in one class?

3. When you look for a mindfulness-based activity, how important is the length (time of session) and duration (time of program) of the program/curriculum?
    a. How long is a typical session for you?
    b. When taking into account the length and duration of an MBI, what are some of the difficulties for you?
    c. What aspects of duration and length contribute positively to the sessions?
    d. What classes do you implement MBIs with?

4. Do you implement mindfulness-based trainings more frequently in some classes and not others? How so and why?
    a. Are there times when you select specific activities for one class and not another?
    b. What are the benefits to implementing certain activities with some classes and not others?

RESEARCH QUESTION #3:

How have Mindfulness-based interventions (MBIs) impacted your teaching?

5. Describe how you feel when you conduct a mindfulness session with your class:
    a. In what ways do you feel that mindfulness has helped your teaching practice?
    b. In what ways do you feel that mindfulness has hindered your teaching practice?

      c.   What do you enjoy about running mindfulness sessions?

7. How do you perceive that MBIs have contributed positively to your classroom management?
      a.   Do students appear more receptive? How?
      b.   Are students more involved in class? How?

Appendix C8

Observation Log/Field Note Guide

Observation Log/Field Note Guide

(Must be completed 3-7 days after interview #2)

ACTIONS AND STATEMENT/QUESTIONS BY TEACHER	SUMMARY
Example Stands at the front of the room, takes attendance while calling out student names. "We will be continuing with our units, but first we'll be doing some mindfulness. Please turn off your cell phones or place them on silent."	**Example** Teacher performs daily administrative tasks. Teacher sets the environment for the lesson.

Adapted from: Danielson (2008):"Form F: Notes from the Observation"
Danielson, C. (2008). *The handbook for enhancing professional practice: using the framework for teaching in your school.* Alexandria, VA: Association of Supervision and Curriculum Development.

Appendix C9

Interview #3 Script and Questions

Interview Script and Questions

PEDAGOGICAL PRACTICES AMONG PUBLIC SCHOOL HEALTH AND PHYSICAL EDUCATION TEACHERS IMPLEMENTING MINDFULNESS-BASED STRESS REDUCTION TO ADOLESCENTS: A PHENOMENOLOGICAL STUDY

Interview Script #3

Action:
Send a confirmation email to the participant. Meet participant in his or her office during off-school time.

Read:
Hi [Participant Name],

Thank you for allowing me to come and observe your class. I appreciate you opening your classroom up to me and sharing a lesson with me.

This interview will be more reflective than the last one. I would really like to get a sense of your experiences teaching and tap into some of your methods you use to assist you with your most successful mindfulness-based interventions.

This interview follows the same format as the last two but questions were formulated based upon observation and a review of previous interviews.

This interview should last no more than 20 to 40 minutes and once again, this meeting will be tape recorded and transcribed later on. I may have you check over the transcript of this interview to ensure that the content you are giving me is valid.

At this point do you have any questions or concerns before we get started?

INTERVIEW #3

(Must be completed 3-7 days after classroom observation)

RESEARCH QUESTION #1:

What content do you use for teaching mindfulness?

1. What content has been most successful? Why? Least successful? Why?

2. Thinking back to your mindfulness trainings that you've been exposed to:
   a. How are you utilizing that content?
   b. Why did you adopt the pedagogy you are using now?

3. Based on your goals for your health and/or physical education course:
   a. What are the State standards you target?
   b. What are the and essential questions you use?
   c. What do you want your students to take away?

RESEARCH QUESTION #2:

What mindfulness methods of delivery, length, and frequency of delivery do you use?

4. What delivery method has been most successful? Why? Least successful? Why?

5. What length of session has been most successful? Why? Least successful? Why?

6. What frequency of delivery has been most successful? Why? Least successful? Why?

RESEARCH QUESTION #3:

How have mindfulness-based interventions (MBIs) impacted your teaching?

7. How have you evolved as a mindfulness educator?
   a. In which areas have you seen the greatest growth as an educator?
   b. In which areas have you observed the least growth as an educator?
   c. What do you feel is your overarching priority for improvement as an educator related to MBIs in the classroom?

8. What elements of your experiences as a teacher:
   a. Make you want to continue to teach mindfulness? Why?
   b. Make you not want to teach mindfulness? Why?

9. Reflecting on your MBIs, what lessons have been successful? Why?

10. Describe how you feel when you conduct a mindfulness session with your class:
    a. Please tell me how you felt as a teacher and in your perspective, what you experienced.

11. Do you personally practice your mindfulness lessons prior to implementing them with your students?
    a. How does your own practice of mindfulness inform your teaching?
    b. What are the benefits, if any, from teaching your students mindfulness?