Teacher Perceptions of Mindfulness Implementation in Public Schools

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INTRODUCTION

A quick Google search for “mindfulness in schools” reveals that in the last five years nearly every major mainstream news agency has published an article on the topic. From the New York Times: “Under Stress, Students in New York Schools Find Calm in Meditation,” “Using Meditation to Help Close the Achievement Gap,” and “Mindfulness for Children.” CNN writes about “Calming the Teenage Mind in the Classroom,” and The Atlantic has an article called “When Mindfulness Meets the Classroom.” Elissa Strauss, a journalist and mother, writes in her article “Being Mindful About Mindfulness,” for Slate that she realized “how inescapable the great mindfulness monster’s blubbery grip on our culture has become” when her son’s prekindergarten teacher asked the class to take a deep breath. In “My Students Call Me the ‘Peace Teacher.’ My Job Has Never Felt More Important,” a teacher tells the Washington Post that her students “started telling m[her] her they were doing [Mindfulness] at home to relax or fall asleep at night,” after she began incorporating “mindful moments” into her classroom in response to an attempted to school shooting in Washington, DC. Mindfulness, it appears, has become one of the hottest topics in pop educational psychology—but does science back it up?

It’s true that the scholarly research on Mindfulness in education is impressive. One study found that students in classrooms that used mindfulness were more likely to transfer learned material to new and novel situations, to be creative, and to think independently (Richart & Perkins 2000). Another study found that children who had received mindfulness training in four urban public schools had reduced stress responses—less rumination, intrusive thoughts, and emotional arousal (Ancona & Mendelson 2010). A study of one teacher training program found students showed great improvements in cognitive control and stress physiology, empathy, perspective-taking, emotional control, optimism and school self-concept and decreases in depression and aggression.
And finally, a 2014 meta-analysis of 24 mindfulness-based interventions in schools concluded Mindfulness was particularly helpful in improving cognitive performance and resilience to stress (Zenner, Herrnleben-Kurz & Walach, 2014). These four studies are just a few of the many positive papers published recently on Mindfulness. To my knowledge, none mention nor cite negative findings.

Mindfulness, in short, seems to be heralded as the magic bullet for all our problems in the classroom: anxiety, depression, stress, attention, test scores, behavior issues, and more. But is it? Or are we missing something? It is certainly hard to believe that one intervention could yield such widespread success. Just how feasible and realistic is this?

This senior capstone is based on what I believe is missing from the research on Mindfulness education: the perspective of teachers implementing these programs on a day to day basis. Current research, for the most part, contains one or more of the following flaws:

1. The focus is on student outcomes, not on the regular school teachers’ experiences.

2. Students are put through intensive treatment for a set number of weeks (rather than integrated into the everyday classroom) and then Mindfulness practices are terminated. In other words, they get a supercharged dose of Mindfulness practice for a set number of weeks rather than integrating it into everyday life.

3. Mindfulness education is taught by a trainer from outside the school rather than teachers themselves.

It is important to study teacher perceptions as well as student outcomes because research studies have shown that teacher perceptions of social-emotional learning curriculum are significantly linked with student outcomes in a given program (Ransford et al 2009, Moon et al 2017). That is, the success of social-emotional learning is often dependent on how a teacher feels about it. Mindfulness should also be studied from a teacher perspective because teachers are often the most
closely linked adults to students in schools and thus can provide valuable insights into their students’ outcomes beyond numerically based surveys. Teachers have first-hand experience and qualitative knowledge that may prove to be just as—if not more—useful in assessing Mindfulness programs.

Originally, I had planned to interview only teachers at schools that were not participating in formal programs and had not hired an outside trainer or school psychologist to implement a Mindfulness program. I chose this course because most of the research on Mindfulness has focused on outcomes from schools with formal programs, which I believe is flawed. These official programs and trainers add additional costs to schools, and yet most schools in this country are struggling with funding, and are therefore these programs are not easily accessible to all schools. Additionally, these intensive programs are time consuming. Many schools may not be able or willing to allot significant periods of time—i.e. 45 minutes a day for 12 weeks (Ancona & Mendelson 2014) or 400 minutes over 8 weeks (Bazzano et al 2018)—to Mindfulness because time in school is already limited.

Teachers are required to squeeze significant amounts of material into the short year in order to align with the Common Core; there is barely enough time to prepare their students for tests—how can we expect teachers to shorten possible teaching time by 40 minutes each day? And if class time is not to be cut, what goes? Physical Education, which has been shown to improve academic achievement (Tremarche et al 2007)? Recess, which aides young children’s social development (Bishop & Curtis 2001)? If experts are advocating for Mindfulness to be used across the country, I believed that we must ensure that it can be implemented feasibly and practically—both in terms of time and money.

According to my original research proposal, the teachers I would interview would also not have decided to implement Mindfulness on their own. That is, they would be teachers working at schools which had required or urged them to do so—they would not be the ‘true believers’ who had seen the benefits of meditation in their own life or read a book about meditation for children during their spare time. I hoped to interview these teachers because if every school across the country is
expected to implement Mindfulness into all their classrooms, chances are not all teachers will be
interested or eager from the get-go. I believed that if Mindfulness is truly practical, the programs
should be able to be implemented by teachers who are not already true believers.

In summary, my original research question was: can teachers successfully implement
Mindfulness into the daily workings of their classrooms if they have no personal experience with it
and no formal training by an outside specialist? This is an important question because if Mindfulness
becomes a widespread movement in schools many teachers might be in this situation. But,
unfortunately, I was unable to find very many of these teachers. This was because the
implementation of Mindfulness in schools, I learned, is usually done in one of two ways: schools
bring outside trainers into the classrooms to train the students or teachers who have had extensive
personal experience with Mindfulness bring the skills into their classroom. Although disappointing
because I believe this question is central to understanding the feasibility of Mindfulness, my
preliminary finding that there are very few teachers who fall into my desired category at this moment
in time is telling. Perhaps I was unable to find many teachers for my original subject pool for a
reason—perhaps Mindfulness is not a feasible solution for education-related problems without an
intensive and expensive training program or if a teacher does not have personal experience with it.

Because of my inability to recruit enough teachers who fit into this specific category, I
decided to instead interview teachers who have come to implement mindfulness into their classroom
in a diverse variety of ways. This will give my research project an added dimension—the ability to
compare different experiences of Mindfulness implementation. The following are the different
teacher subject pools I identified:

1. Teachers at schools which have instituted Mindfulness top-down. That is, teachers
   who have been required or urged by their schools to implement Mindfulness into
   their classroom. This was my original desired subject group.
2. Teachers who have voluntarily implemented Mindfulness without any formal support. These are teachers who learned about Mindfulness on their own and have not received any Mindfulness training by their schools.

3. Teachers who have voluntarily implemented Mindfulness into their classroom, but with the support of their school through the hiring of or working with outside Mindfulness trainers.
**SCOPE OF RESEARCH & RESEARCH QUESTIONS**

This capstone investigates the experiences of teachers who are implementing Mindfulness into the day-to-day happenings of their classrooms. I want to look at teacher experience rather than student outcomes. What does it look like when a teacher tries to integrate Mindfulness into the everyday classroom lives of the students instead of having an outside trainer teach the students Mindfulness? How do the experiences of teachers who have support from their administration compare to those who are implementing Mindfulness alone? Does formal Mindfulness training make a difference? How do the experiences of teachers change, if at all, when they begin teaching Mindfulness skills? How do teachers’ different training experiences effect perceptions of Mindfulness implementation? Therefore, the educators I will interview will all:

1. Be implementing Mindfulness themselves—that is, they will be the primary Mindfulness leader for their students, not an outside trainer.
2. Be implementing Mindfulness education non-intensively—that is, Mindfulness is to be integrated into the everyday classroom experience not in one hyper-dose

My research questions are:

1. How and why are schools implementing Mindfulness education?
2. What are teachers’ perspectives on the feasibility of implementing Mindfulness into the classroom?
3. What are the challenges teachers face in implementing Mindfulness?
4. Has the implementation of Mindfulness changed teachers’ experiences in their classrooms and with their students? In what ways?
METHODOLOGY
This research project consists of two parts—a literature review and an analysis of interviews with teachers. The literature review is imperative because it is important for my readers to understand the more objective complexities of my topic before diving into a subjective, anecdotal look at the implementation of Mindfulness curricula. My literature review delves into the following questions:

a. What is mindfulness education?

b. What evidence is there that it works? (what do we know based on this research and what do we still not know?)

c. How are teachers being trained?

d. What does implementation look like?
   i. What are the skills teachers are teaching?
   ii. What are the tools teachers use?

e. Are there difficulties? If so, what are they?

f. Are there criticisms of mindfulness education? If so, what are they?

Twelve public school teachers were interviewed across the United States between January and April 2019. Interviews lasted between 30 and 90 minutes and took place in public places or over the phone if in-person interviews were not possible because of distance. Participants were identified through chain-referral sampling from contacts and the Yale Child Study Center and other Yale-affiliated organizations. These individuals connected me to potential participants through email prior to my reach out. See Attachment A in the appendix for the email template used to recruit teachers.

If a teacher agreed to participate an interview time was scheduled and they were provided with an information sheet over email. Prior to the start of the interview participants were asked if they had any questions and provided updated information about the research. It was then reiterated that participants were free to decline to answer any questions and that they also had the right to
remove themselves from the study at any time. The audio recording device was then turned on and 
the interview began. See Attachment B in the appendix for a sample of interview questions.

After the interview, all participant identifiers the teacher may have mentioned during the 
interview were removed and the audio recording were stored on Box at Yale in the Secure Box 
under the name of the subject’s participant code. The interviews were then transcribed by either 
myself or the application Descript. Qualitative data was then analyzed for themes using content 
analysis.
LITERATURE REVIEW

What is Mindfulness?

Mindful Based Stress Reduction (MBSR) was developed nearly 30 years ago by Jon Kabat-Zinn as a medically based, therapeutic meditation practice aimed at helping people with chronic pain.

Mindfulness is “the function of an individual’s conscious, purposeful choice and the ability to be fully aware in the present moment,” (Hanh 1976). One does this through learning to attend to the present in a sustained and receptive fashion (Brown & Ryan 2003), particularly through focusing on the breath during meditation or yoga. Mindfulness helps individuals:

1. View a situation from several perspectives.
2. See information presented in the situation as novel.
3. Attend to the context in which we are perceiving the information.
4. Eventually create new categories through which this information may be understood. (Kabat-Zinn 1990). Thus, mindfulness allows one to feel more ‘in control’ of their life and increases the capacity to pay attention to what one desires (Napoli 2005).

In a 1979 clinical study, Zabat-Zinn found that a significant majority of the patients reported less personal suffering and an increase in quality of life. Due in large part to this success, Mindfulness has become a popular treatment for a variety of mental health concerns. In clinical studies, Mindfulness has been shown to be effective in the treatment ADHD, anxiety, autism spectrum disorders, and depression in children and adolescents (Lawlor, 2016).

Why are schools implementing Mindfulness?

In an article by a teacher in Washington, DC who teaches mindfulness to her students, Linda Ryden writes—

if there’s one thing I feel even more strongly about today than the day I began [teaching], it’s this: teaching our young students mindfulness, brain science and kindness is absolutely critical to helping them develop the skills to solve conflicts peacefully and to face challenges
with skillful compassion…. My students experienced mindfulness as it is meant to be: a set of skills that we can learn to help us to focus better, to manage our emotions, to calm ourselves down, to become kinder and more compassionate (Ryden, 2018).

Here, Ryden echoes the desires of schools across the country who are implementing mindfulness—they want to teach their students to learn to 1) focus better 2) manage their emotions 3) calm themselves and 4) be kind and compassionate.

Research shows that Mindfulness successfully targets these four categories. In the following sections I provide a brief overview of the evidence which backs up why educators are implementing mindfulness and how scientists believe mindfulness works. This is because in order to effectively evaluate whether or not these tools and techniques are feasible, one must understand their purpose. In other words, I would like to know if teachers who are implementing Mindfulness on a day-to-day level are seeing the same gains that the major research studies show.

Mindfulness research overview

With an overall increase in child and adolescent psychopathology, schools have begun to focus more of their attention to student mental health (Singh, Singh, Lancioni, Singh, Winton & Adkin, 2009). In fact, in 2010 21% of 13 to 18-year-olds were found to be suffering from or had at some point suffered from a severe mental disorder including ADHD, conduct disorder, and anxiety (Merikangas et al., 2010). It is important for schools to address these concerns because mental illness is significantly correlated with low academic performance, poor developmental outcomes, low social adjustment, substance misuse, violent behaviors, and poor social relationships (Dick & Ferguson, 2015). Although most studies have focused on Mindfulness in adult populations, recent research has shown that Mindfulness might help reduce symptoms in school children with pre-existing psychopathology and also function as a preventative measure for those who do not (Brown & Ryan, 2007).
Mindfulness and attention/executive functioning

Research in adult populations has shown that Mindfulness increases overall attention due to its emphasis on learning to be present in the moment (Hamilton et al., 2006). One study found that meditation increases control over and ease of switching the focus of attention (Zeidan, Johnson, Diamond, David & Goolkasian, 2010) and several brain imaging studies have shown that meditation influences cortical thickness and other structural changes in the brain related to attention capabilities (Luders et al., 2012). Children who participated in an intensive mindfulness-based training program displayed significantly greater increases in sustained and selective attention (Napoli et al., 2005).

Along with difficulties in attention, children with ADHD often have trouble with executive functioning. Executive functioning is the ability to coordinate reasoning, working memory and self-control (Heeren et al., 2009). Put simply, executive functioning is a child’s capacity to override their impulses and reactive behavior. The development of these skills is critical for children later down the line because executive functioning has been linked to greater academic achievement and mental health (Rogers et al., 2004). Brain imagining studies have shown that mindfulness may support the development of the prefrontal brain structures which are related to enhanced executive function (Sanger & Dorgee, 2015). Researchers believe that this is the case because mindfulness strengthens a child’s ability to keep in mind and manipulate information (working memory) through practicing focusing on the present moment.

Researchers believe that this is the case because mindfulness strengthens present-moment awareness, increasing a child’s ability to tune into changes in their affective states and allow them to pass. (Teper, Segal & Inzlicht, 2014). For example, a child who has practiced mindfulness may better be able to identify feelings of frustration in the classroom and therefore focus their attention to the task at hand.
before engaging in a reactive behavior. Given these reductions in symptoms of ADHD, researchers have concluded that mindfulness may be a useful strategy for treatment for children with this disorder (Cairncross and Miller, 2016).

**Mindfulness and emotion regulation**

On a given day the average child experiences a wide variety of emotions—both positive and negative. Part of development is learning to become aware of and to begin to control these emotions. Overall, research shows that children who are better able to control their emotions are more likely to experience success in school, have better physical health, higher socioeconomic status and income, and lower levels of criminal offense later on into adulthood (Moffitt et al., 2011). Because of this, educators have begun to incorporate programs which foster the development of emotion regulation. Mindfulness has been researched as one such programs and the results of many of these studies have been favorable. This may be due to the fact that mindfulness aims at teaching children to be aware of their emotions and the transience of them—that negative feelings happen, but they often pass on their own and we therefore do not always need to react to them. Many urban school children, for example, have adopted problematic emotional responses such as rumination to the stresses they face on a daily basis. But Mendelson and colleagues (2010) found in their study that these children were less likely to display maladaptive coping strategies for intense emotions after a mindfulness intervention which taught breathing exercises to use during stressful moments.

**Mindfulness and learning to calm oneself down**

If a behavior is repeated enough times in response to a certain situation, the given behavior can begin to operate outside of conscious awareness—that is, it becomes nearly automatic (Berkowitz, 2008). For example, a child may develop an instinctive aggressive behavior when they feel anxiety about a test or when a teacher raises his or her voice. Because these stresses are experienced frequently in schools (Currie et al., 2002) it becomes increasingly difficult for a child to learn. When an acute stress response is activated adrenaline levels in the body go up and the
emergency response process occurs (Dreher, 1996). In this mode, students’ midbrain—the part of the brain which regulates sensory processes—turns on and higher ordered cognitive processes become inactive and meaningful learning cannot occur (Badre & Wagner, 2002).

Mindfulness has been shown to help children disrupt this reactivity and strengthen a new, positive behavior such as paying attention to sensations in the body which in turn allows the child to calm down (Zelazo & Cunningham). For example, Schonert-Reichl and Lawlor (2010) showed that children who participated in a mindfulness programs were less likely to display problem behaviors such as aggression and opposition during the school day compared to children who had not participated, which allowed them to more actively engage in the classroom.

Mindfulness and social-emotional learning

Social-emotional learning (SEL) is the cultivation of (1) self-awareness, (2) social awareness, (3) self-management, (4) relationship skills, and (5) responsible decision-making (Zins, Weissberg, Wang & Walberg, 2004). Essentially, SEL is what allows a child to interact and develop relationships with others because it aids in the development of identifying others’ emotions and thus empathizing with them (Root and Denham, 2010). Children who have undergone SEL programming have been shown to have greater social awareness—that is, they are better able to take the perspective of others who are different from them (Lawlor, 2016). In fact, one study showed that children who misread emotions were more likely to be rejected by their peers (Izard, Fine, Schult, Ackerman & Youngstrom, 2001). Mindfulness has recently been studied through the framework of SEL and has been found to deepen the five aspects of SEL (Cohen, 2006; Schonert-Reichl & Lawlor, 2010). A byproduct of mindfulness training may be the increase of positive emotions which in turn increases positive social relationships (Fredrickson et al., 2008). Additionally, by learning to become aware of one’s own emotions through mindful practices, children may also become more attuned to others’ emotions and nonverbal behaviors (Brown et al., 2007).
Mindfulness and academic achievement

A search in Google Scholar of “Mindfulness and academic performance” results in 68,400 hits. One study “Subliminal priming of motivational orientation in educations settings: Effect on academic performance moderated by mindfulness,” showed that adolescents who participated in a brief mindfulness session prior to an academic task performed better than those who had not. In a study on high school students grades in philosophy, Spanish language and literature, and foreign language, researchers found that 10 weeks of once a week Mindfulness workshopping significantly improved academic performance when compared to a control group. And finally, preschooler who received two years of Mindfulness instruction were found to have higher vocabulary and reading scores than the business as usual group.

Mindfulness and schools overview:

Overall, mindfulness increases readiness to learn. Readiness to learn is defined by the ability to regulate emotions and behaviors, and to inhibit impulsivity in the classroom (Diamond & Lee, 2011). Readiness to learn has consistently been linked to cognitive functioning and academic success (Zinns et al., 2004). One study, for example, showed that the ability to “impede habitual responses while initiating attention control” was a greater indicator of academic success than general intelligence (Blair & Razza, 2007). Therefore, schools are looking for ways to help their students increase their readiness to learn and mindfulness may be one avenue to do so.

Why might schools be the best place to implement Mindfulness?

Schools are often the best place to address concerns, especially since a critical mission of schooling is to educate the “whole child”— in both cognitive and noncognitive skills (Greenberg et al., 2003). Additionally, research shows the most efficient way to address mental health concerns in children is through their schools, particularly through prevention initiatives dedicated to social-emotion learning (Greenberg et al., 2003). This is due in part to the fact that many socioeconomically disadvantaged children do not have access to mental health care; these children
are also two to three times more likely to develop mental health problems (Reiss 2013), to have behavioral problems (Singh & Ghandour 2012), and to be physiologically altered due to chronic stress (Brenner et al 2013). And finally, schools, unlike clinical settings, have the ability to offer not just remedial care but preventative care (Weare & Nind, 2011). Catching at risk children before problems arise would not just be beneficial to the children themselves, but also for the schools because these programs can supposedly be implemented at lower costs (Weare & Nind 2011).

Therefore, educators are looking for ways to help students better learn by adapting stress-reducing interventions into their classrooms. In schools where children are faced with external stressors these interventions are particularly important. Several studies show that incorporating stress reduction programs in general into classrooms correlates with improvement in academic performance, mood, self-esteem, concentration, and behavior problems (Napoli 2005; Kiselica, Baker, Thomas & Reedy 1994; Ballinger & Heine 1991).

Stress reducing interventions can be costly to schools, though, and also place a great burden on educators—not only must they address academic needs, but they also must address mental health concerns. Therefore, some educators are turning to Mindfulness because it is efficient and low-cost (Schonert-Reichl & Roeser, 2016).

*How are schools implementing Mindfulness?*

Mindfulness interventions can be implemented in schools through meditation and/or yoga practices. In one meta-analyses of 24 studies which looked at Mindfulness interventions in schools, the breakdown of various techniques was used:

<table>
<thead>
<tr>
<th>Intervention components</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breath awareness</td>
<td>100</td>
</tr>
<tr>
<td>Working with thoughts and emotions</td>
<td>88</td>
</tr>
<tr>
<td>Psycho-education</td>
<td>83</td>
</tr>
</tbody>
</table>
### Table 1: Mindfulness Practices Used by Teachers

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of senses and practices of daily life</td>
<td>83</td>
</tr>
<tr>
<td>Group discussion</td>
<td>75</td>
</tr>
<tr>
<td>Body-scan</td>
<td>58</td>
</tr>
<tr>
<td>Home practice</td>
<td>50</td>
</tr>
<tr>
<td>Kindness practices</td>
<td>46</td>
</tr>
<tr>
<td>Body practices (like yoga)</td>
<td>25</td>
</tr>
<tr>
<td>Mindful movement</td>
<td>21</td>
</tr>
<tr>
<td>Additional material</td>
<td>42</td>
</tr>
</tbody>
</table>

(Zenner et al 2014)

As evidenced by this chart, there is a wide variety of tools that teachers use to teach their students mindfulness. Unfortunately, though, these terms are often not defined in these studies. For example, what exactly is breath awareness? Is it the same thing across all the different studies? Consistency is not explained.

In many schools, outside companies, such as MindUp, are hired to train teachers in mindfulness. MindUp sends a certified trainer to the school to help implement a specific mindfulness curriculum. Some of the techniques taught to teachers include the following (The Hawn Foundation, 2011):

- Three two-minute “brain breaks” throughout the day (meditation sessions).
- A gratitude circle (children go around and say what they are grateful for).
- “Appreciating happy memories” activity—students are asked to close their eyes and imagine the happy memory for a few minutes. They are taught to do this when they are feeling out of control, teaching children that they can control their emotions by going to this memory.
Programs like MindUp are quite structured and provide teachers with exact lesson plans and worksheets for their students. When a specific company is hired by the school or the school district, teachers are often required to implement the techniques whether they want to or not.

At other schools, such as the Beecher Road School in Woodbridge, CT, the school psychologist teaches yoga (with a focus on breathwork) during gym or class time. At schools like these the classroom teachers are not always involved.

And finally, at some schools teachers practice mindfulness in their own classrooms on their own—they are not told by their administration that they need to but rather implement Mindfulness of their own volition.

What are the gaps in current research?

There are many issues with the papers that have been published on the Mindfulness education in schools. The following are most significant to my paper—

Problems with research design

1. There is very little research on the specific contexts in which Mindfulness based interventions are most helpful (Meiklejohn et al 2012). Mindfulness has taken the world by storm because of the positive gains shown in research. But what populations are being studied? Mostly adult populations (Mendelson et al 2010). Why do we think we can apply adult research to children?

2. The majority of studies are not randomized control trials (Biegel et al 2009; Galantino et al 2008). In a randomized control trial, participants are allocated randomly to either a control group where they receive treatment as usual (i.e. no Mindfulness training) or an experimental group where they receive a new treatment (i.e. Mindfulness training). This randomization ensures an unbiased estimate of the effects of the Mindfulness training, and allows researchers to compare the two groups.
3. Studies on mindfulness-based interventions of schools are conducted primarily by the study authors—that is, the people writing the papers are implementing the interventions (Zenner et al 2014). This creates problems in the data collected for bias is certainly likely if the researchers are using their own programs. In one study that had teachers implementing Mindfulness themselves, outcomes were measured by student grades—but the same teachers who were teaching the Mindfulness were also the ones assigning the grades to their students (Bakosh et al 2016). Rigorous research would have had outside graders to eliminate validity threats.

4. Most of the research relies on self-report data and questionnaires (Zenner et al 2014). We need qualitative data.

5. Recruitment for many studies may have created a biased sample because participation is often voluntary for these programs (Mendelson et al 2010). What about the teachers and students who do not want to participate?

**Missing aspects of research studies**

1. Very little research is accessible about under-served populations. One of the primary studies which showed significant effects of mindfulness education for low income children had students attending mindfulness programs four days per week (Mendelson 2010). This is a very large chunk of time which is lost to other important school activities.

2. There is very little research of the feasibility of integrating Mindfulness into school routines (Zenner et al 2014).

3. This research is all relatively new because Mindfulness is just in its early stages. Therefore, there is no research on long-term gains (Bakosh et al 2016).

**Practicality of programs studied**
1. In one of the most thorough meta-analyses of Mindfulness-based interventions in schools, researchers found that 71% of interventions were taught by outside of school trainers—not teachers (Zenner et al 2014).

2. Many of the programs are not designed for teachers alone—that is, Mindfulness is either implemented entirely by an outside of school trainer or a trainer is present to assist the teacher (Bakosh et al 2016). One study had not one but two outside of school trainers in each classroom (Mendelson et al 2010). What happens when the outside help leaves?

**Concluding thoughts**

Teachers need to be brought into the conversation surrounding the effectiveness on Mindfulness education. Right now, there are glaring gaps in the research and I believe that qualitative information from teacher interviews might help to fill them. Numbers and student outcome data do not tell us enough—particularly given that our country is funneling large amounts of time, money, and effort into introducing Mindfulness into classrooms. Children are being affected by these practices in significant ways and we therefore need rigorous research on Mindfulness education. As I have hopefully made evident, many of the studies which are being used as evidence for the need for schools to implement these new practices are far from thorough. We must not believe that Mindfulness works in the classroom simply because there are scientific papers showing they do— these papers need to use quality methods and should be conducted by researchers who do not have stakes in the companies providing these services to children. For one of the more popular educational concepts being celebrated by mass media right now, we know shockingly little. By asking teachers—the people actually implementing these programs long term—we are demanding first-hand information.
RESULTS

In this section of the paper the results of qualitative analyses of the 12 teacher interviews are separated into four separate sections. The first provides information about the teachers’ demographics and backgrounds in Mindfulness prior to introducing it into their classrooms. The second section focuses specifically on how the teachers have implemented mindfulness and how their schools have been involved. The third section discusses the teachers’ perceived benefits of introduction—to their students and to themselves. And finally, the last section focuses on the challenges they have faced bringing mindfulness into their classrooms.

Teacher background:

Demographics

In order to preserve the anonymity of subjects, pseudonyms are used when referring to the specific teachers interviewed. Table I below shows basic self-reported demographic information of the teachers interviewed and the students they teach.

Table I:

<table>
<thead>
<tr>
<th>Teacher Pseudonym</th>
<th>Gender</th>
<th>Grade level</th>
<th>Years of teaching</th>
<th>Student demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paula</td>
<td>F</td>
<td>2nd</td>
<td>13</td>
<td>14% free and reduced lunch, all ELL</td>
</tr>
<tr>
<td>Donald</td>
<td>M</td>
<td>5th and 6th</td>
<td>4</td>
<td>74% free and reduced lunch, all ELL</td>
</tr>
<tr>
<td>Lucy</td>
<td>F</td>
<td>3rd</td>
<td>12</td>
<td>13% special needs, 11% ELL, 47% free reduced lunch</td>
</tr>
<tr>
<td>Georgia</td>
<td>F</td>
<td>K</td>
<td>30</td>
<td>Middle class, 25% special needs in her classroom</td>
</tr>
<tr>
<td>Suzy</td>
<td>F</td>
<td>K</td>
<td>3</td>
<td>90% students’ parents affiliated with nearby university</td>
</tr>
<tr>
<td>Caleb</td>
<td>M</td>
<td>9th and 10th</td>
<td>8</td>
<td>80% African American, 70% free and reduced lunch</td>
</tr>
<tr>
<td>Helen</td>
<td>F</td>
<td>PK</td>
<td>2</td>
<td>Mostly middle class</td>
</tr>
<tr>
<td>Julia</td>
<td>F</td>
<td>7th and 8th</td>
<td>14</td>
<td>40% free and reduced lunch</td>
</tr>
<tr>
<td>Laura</td>
<td>F</td>
<td>3rd, 4th, 5th, 6th</td>
<td>12</td>
<td>78% free and reduced lunch</td>
</tr>
<tr>
<td>Kacey</td>
<td>F</td>
<td>PK</td>
<td>13</td>
<td>70% free and reduced lunch, 9/21 students with an IEP</td>
</tr>
<tr>
<td>Alice</td>
<td>F</td>
<td>5th</td>
<td>22</td>
<td>63.4% free and reduced lunch, 4 students with IEPs</td>
</tr>
<tr>
<td>Anna</td>
<td>F</td>
<td>8th</td>
<td>4</td>
<td>60% free and reduced lunch</td>
</tr>
</tbody>
</table>
As demonstrated by Table I, 83% of the teachers interviewed were female. The range of teaching experience was 2 years to 30 years with an average of 11.4 years. There was a wide variety of grade levels taught and states where the teachers were located. All but two teachers identified their school as primarily serving students with low socioeconomic status, with ranges of 40% to 70% of students qualifying for free or reduced lunch. 9 of 12 teachers identified that a significant portion of their students have IEPs and 3 teachers taught in only special education classrooms. 3 teachers taught in classrooms where 50% or more of their students’ first language was not English (ELL).

Prior experience with Mindfulness

Table II:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Paula</td>
<td>yes</td>
<td>20+</td>
<td>Formal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Donald</td>
<td>yes</td>
<td>10</td>
<td>Self-taught</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lucy</td>
<td>yes</td>
<td>0</td>
<td>Formal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Georgia</td>
<td>yes</td>
<td>0</td>
<td>Self-taught</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Suzy</td>
<td>yes</td>
<td>20+</td>
<td>Formal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Caleb</td>
<td>yes</td>
<td>2</td>
<td>Self-taught</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Helen</td>
<td>yes</td>
<td>5</td>
<td>Self-taught</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Julia</td>
<td>yes</td>
<td>0</td>
<td>Formal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Laura</td>
<td>yes</td>
<td>8</td>
<td>Formal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Kacey</td>
<td>yes</td>
<td>10</td>
<td>Formal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Alice</td>
<td>yes</td>
<td>2</td>
<td>Formal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Anna</td>
<td>yes</td>
<td>6</td>
<td>Formal</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

75% of the teachers who were interviewed had at least 1 year of practicing Mindfulness in their own life prior to introducing it to their classroom. 100% explained that they currently practice Mindfulness in their own lives. Several teachers practiced meditation for many years before using it.
with their students including Donald, who explained he lived in India for 2 years where he participated in several silent meditation retreats for months at a time (Donald, personal communication, February 8 2019). Another teacher, Paula, talked about how she started practicing yoga in high school when she had “a really hard time settling and staying still.” Donald also talked about how part of the driving force behind going to India was that he is “typically a person who has tons of trouble quieting the mind and staying focused on one thing,” (Donald, personal communication, February 8 2019). Anna said she was talking to other teachers at a professional development day about how much Mindfulness had helped her in her own life and then “I don’t know, maybe Siri heard me talking and then all of a sudden Mindfulness trainings kept popping up on my social media,” (Anna, personal communication, March 25 2019) And finally, Helen discussed her long struggle with anxiety and that meditation was the only thing that helped her “be able to be calm at the end of the day,” (Helen, personal communication, February 21 2019).

A few teachers, though, began to use Mindfulness in their own lives not for their own benefit, but to become familiar with it before introducing the skills to their students. Julia talked about seeing an ad for a non-profit which trained teachers in Mindfulness in her local newspaper. “I saw that some of the other schools around the [area] were using this program… I shared it with my new principal and told her I would really like to explore this more, it seems like something that could maybe make a difference… so I went out and fundraised and wrote a bunch of grants to partake in the program,” (Julia, personal communication, February 13 2019). One teacher remarked that “the only experience I had before my formal training was a paper I read in college,” (Lucy, personal communication, February 12 2019) and Kacey told a story about her first introduction to yoga being a school-wide professional development about teacher self-care. The majority of the teachers, though, came to practice meditation and yoga for benefits in their own lives.
Driving factors

Overall, when asked why they decided to try to teach these skills to their students 50% of the teachers talked about how meditation and yoga had helped them through their own mental health struggles and that they believed their students might benefit in the same way. Similar to findings in the literature on increasing rates of mental health problems in children and adolescents, Lucy explained that “anxiety is way up from where we used to be and this is how my job has changed. I used to see kids who were throwing chairs and angry… now I’m seeing kids with the crying and falling down on the floor and hiding under furniture… there has been a shift…” (Lucy, personal communication, February 12 2019). Similarly, Julia said “I have many kids who are experiencing more anxiety than before and coming from homes where there have been traumatic events such as a parent overdosing on drugs or foster care placement…they need this,” (Julia, personal communication, February 13 2019).

Because of the increase in anxiety, many of the teachers I spoke to turned to meditation in order to provide their students with ways to cope because as one teacher noted, many of her students “have been doing things for one way for a very long time and have developed unhealthy or maladaptive coping strategies,” (Julia, personal communication, February 13 2019). Kacey said, “I thought, this might be a really great way to teach them how to handle their feelings and their emotions in a more appropriate way than just sitting down and throwing a tantrum and crying,” (Kacey, personal communication, March 1 2019). One called Mindfulness “preventative work” (Laura, personal communication, March 1 2019).

Three of the teachers I spoke to (25%) discussed the importance of catching their students early. Laura said, “I knew there was something to building resilience so that when they’re faced with the inevitable stress that we all have they will handle that stress in a safe way,” (Laura, personal communication, March 1 2019) and Julia explained that when she first saw the article about
Mindfulness in her local newspaper she though “well, this would be a really good chance to catch kids at a really important stage of development, to teach them skills that they will carry forward,” (Julia, personal communication, February 13 2019). Kacey described her work with her students as “planting a seed” and that even if her students don’t use the skills today, they might remember them when they are adults (Kacey, personal communication, March 1 2019).

Interestingly, when asked “why did you decide to implement Mindfulness?” none of the teachers talked specifically about classroom management or academics. That is, teachers did not initially identify these skills as a way to make their job easier, to help children stay on task, or to increase grades. This was surprising given that so much of the research is geared towards showing how Mindfulness is more than a mental health tool or a tool to help students increase attention and executive functioning.

Implementation:

*Training*

Having their goals set for how they hoped Mindfulness would help their students—whether that be to learn to cope or to be a preventative strategy—66% of the teachers then went on to be formally trained. That is, they participated in a structured teaching experience where they were instructed by a Mindfulness expert on how to teach Mindfulness in schools. Teachers who participated in yoga training programs for adults (not education related) were not as committed as those who had formal training. Of those who were formally trained, only one teacher mentioned paying for the training herself, one fundraised on her own, and the rest were supported by their schools and/or school districts. One teacher explained that her school district paid $8,000 for her to participate in her training.

The commitment of the training in terms of hours ranged widely across teachers—one teacher participated in a 200-hour training, two teachers had 55 hour trainings, one teacher had a 10 hour training, and one teacher had a 2 hour training—as did the resources the teachers were
provided by their trainers. For example, 5 teachers (41%) had several sessions of in-class coaching and 3 teachers (25%) still attend monthly brush up meetings. “It was really time intensive… one other teacher at my school wanted to do it but ended up not being able to give up that time…I mean, 10 to 12-hour days for 8 days straight” (Anna, personal communication, March 25 2019) Anna explained. The teachers who participated in formal trainings recalled being taught extensively about the research backing up Mindfulness, doing mock lessons, and going through activity books. “One of my teachers called me up the other week to give me a book recommendation… they make sure you’re up to date on all your reading…” Laura said.

The teachers who are self-taught explained that they learned most of their information online and from books. “I surfed through a bunch of websites and apps and YouTube videos and I was like, “alright, I guess we’ll try this,” (Donald, personal communication, February 8 2019) one teacher said about finding resources.

3 of the 4 teachers who were self-taught said they wished they could be formally trained because their own research was not adequate. Donald even said “I have no training… I’m totally uneducated in Mindfulness, it’s all sort of like experiment. I’m just trying to play with the ingredients,” (Donald, personal communication, February 8 2019). Another, when asked if he had thought about enrolling in a training program, explained “yeah, I haven’t thought too much about it lately. I’m pretty stretched. But I do know it’s definitely something that I would benefit from and I think with some more structure I’d better be able to communicate with the students and allow them to do some of the work,” (Caleb, personal communication, February 14, 2019).

**Practice**

The teachers interviewed use a wide variety of Mindfulness tools and activities with their students. Several teachers talked about having a breath of the day—they have a chart in their classroom with different types of breaths (i.e. an elephant breath or a Superman breath) and a
different student each day picks the breath in the morning. Throughout the day, they return to the breath as needed and it only lasts a few minutes. One of the most popular tools used with the younger ages was using a Hoberman sphere, which was mentioned by three teachers, to demonstrate how the lungs fill and empty. Georgia said that “giving them a visual really helps…” (Georgia, personal communication, February 16 2019). Other teachers, particularly the ones with older students, talked about using guided meditations they found on YouTube that last about 5 minutes or an app called Calm.

When it came down to actually practicing the skills with their students, teachers talked extensively about timing. Several teachers talked about using Mindfulness first thing in the morning, but most teachers seemed to think that these skills were most helpful during transitions or emotionally tense times. Georgia explained that she turns to one activity “when I know I’m about to get in trouble… right before we start a new activity and I can see the mood changing and they’re not settling down or coming back to focus…” (Georgia, personal communication, February 16 2019). Similarly, Paula said, “it’s definitely most useful after lunch because it’s one of those times of the day where it’s really unstructured… they need to settle down before sitting on the carpet for a while,” (Paula, personal communication, February 6 2019). Donald also talked about having particular students who are having trouble use the skills, instead of always having the whole class do it together. “I told him, when you feel this way it might be helpful for you to take a five-minute meditation… a cool-down process…” he recalled.

**Administrative involvement**

Teachers also talked quite a bit about their administration’s involvement. Involvement here is defined by financial or verbal support and/or the administrators encouraging the teachers to continue with Mindfulness. As shown in Table II, only 2 of the teachers talked about their administration being completely uninvolved. Donald explained that, “I don’t think they even know
I’m doing it…. I mentioned it once and there was absolutely 0 follow up… they never indicated that they felt like we as a school could do this or we should do this… it would make a huge difference if they did,” (Donald, personal communication, February 8 2019). The other teacher said “I guess they support it by staying out of my way,” (Caleb, personal communication, February 14, 2019).

For the other teachers, administrators have been quite supportive. One teacher’s principal had been the prior superintendent and started a Mindfulness movement in their school district and so “every month she comes in and does yoga in our classrooms and when we start our staff meetings she takes a mindful minute to center and breathe,” (Kacey, personal communication, March 1 2019). Georgia praised her principle for being up to date on all the research— “she is very on board, when something new comes out she’s the first to read it… everything she tells us is backed by research.. she told us that this is an important subject and to dedicate time to it,” (Georgia, personal communication, February 16 2019). Overall, the teachers who do have the support of their administrators seemed to value and appreciate it.

Perceived effects of implementation:

Perceived Benefits

100% of the teachers interviewed reported they have found Mindfulness to be beneficial in their classroom. When probed about specific benefits, teachers said they saw changes in emotional awareness, emotional control, classroom management and their relationships with their students. These benefits are consistent with the research discussed in the literature review of this paper. But, teachers did not report changes in academic achievement nor in social emotional learning.

On emotional awareness teachers reported that many of their students were better able to identify and verbalize the negative emotions they were feeling. One teacher, Anna, has her middle school students journal for 10 minutes after each meditation and explained that her students report in their notebooks that “they already felt fine before and felt fine after, or were feeling stressed,
angry, upset, or annoyed and now they’re feeling calmer,” and that over the year they are better able
to “identify an emotional change in themselves,” (Anna, personal communication, March 25 2019).
Similarly, with her younger students, Georgia said that she often “hears kids using the language I
introduce, like the vocabulary related to their emotions,” (Georgia, personal communication, February 16 2019).

But according to these teachers, their students are not only increasing their ability to identify
their emotions but also to control them. Donald talked about one student in particular who gets
upset “about a lot of things… his closest friends are often the people who are like making him the
most upset at recess,” and that the student “knows that if he’s feeling upset… he knows he has his
Mindfulness tools… he will say to me “after meditation, I'll be fine… I just need some time;””
(Donald, personal communication, February 8 2019). Paula talked about one of her second graders
who—

Came up to me and she said “you’re going to be really, really proud of me.” And she said,
“Well, I got in a fight with my parents and I told them “I'm really, really angry because you
won’t let me do what I want to do,” and I wanted to scream and yell, but instead I counted
to four and I went into my bedroom and took a mindful minute,”” (Paula, personal
communication, February 6 2019).

Paula then went on to explain that the child’s parents reported the same thing at their parent-teacher
conference a few weeks later. And finally, Anna told a story about her middle schoolers who had
just come back to class after having a lock down during lunch due to a fight. Normally, she
explained, her students would be riled up, particularly because shortly after the assistant principal
came to talk to them. But, they had finished a 10-minute meditation. “He was doing his rounds and
you know, talking to all the students about how disappointed he was and how they are supposed to
behave in the cafeteria… he was yelling to a degree. And normally my students don’t respond well
to being yelled at.” (Anna, personal communication, March 25 2019) she recalled. Initially, she
thought there was going to be an incident but then, to her surprise, they began “to nod and they said
like “okay, we understand” … it was the calmest they’ve ever responded and I was like if this is not a meditation selling point, I don’t know what is,” (Anna, personal communication, March 25 2019).

Because of this increased emotional control, several teachers reported feeling themselves in control of their class—that classroom management was easier. Helen said that “it helps wind them down so that when we go through our learning centers they’re able to focus,” (Helen, personal communication, February 21 2019) and Suzy explained that with her four and five-year-old students “having them move around and do a little yoga between different activities makes the activities much more successful,” (Suzy, personal communication, February 13, 2019). Caleb described showing a film of his students meditating during a staff meeting and how surprised his colleagues were to see who was participating—“they were really surprised at who the kids in the room were… there’s two girls who you should never put next to each other and they’re right there sitting next to each other and they’re totally silent… for them as two human being that’s a remarkable feat,” (Caleb, personal communication, February 14, 2019).

Perhaps because of easier classroom management, some teachers claim that their relationships with their students have improved. “This is just another tool in my chest that I can use to help my kids… and they know that… it’s how I build my relationship with my kids” (Alice, personal communication, March 7 2019) Alice expressed. Julia noted that “one of the unanticipated benefits of this stuff is that I’m able to get to the kids who might be a little anxious or struggling just a little. It’s usually the kids who have major problems who I’m talking to. But now I’m connected to these little guys… maybe they’re more willing to reach out for help now, they’re more comfortable,” (Julia, personal communication, February 13 2019). Georgia compared her relationship with her students to that of her colleague—“they’re just like running all over her room and she’s getting so mad at them… she’s not making the connections and being present with them,” (Georgia, personal communication, February 16 2019)—and argued that the difference is attributable to the time she
has taken to get to know the children in her class through meditation. But, not all the teachers I spoke to felt this way. Caleb responded bluntly when asked if Mindfulness has changed his relationship with his students, “I don’t think so. No,” (Caleb, personal communication, February 14, 2019).

**Perceived indicators of success**

Due to the overall positive benefits all the teachers reported, they were probed about how they knew that these changes were due to Mindfulness. Two teachers, Donald and Paula, explained that they knew because their students were asking for meditation. Kacey and Alice recalled times when they noticed their students actually turning to the skills unprompted. “Sometimes when they’re taking a test I see a few of them closing their eyes and doing their deep breathing,” Kacey said; “I had one girl who would just like cry at the drop of a hat and she’s now gotten to a point where she will go and grab the Hoberman sphere and take it to a corner,” Alice described.

Interestingly, though, after much reflection 3 teachers (25%) admitted that they don’t and can’t really know if Mindfulness is working. On the two girls in the film who so surprised the other teachers at his school, Caleb said “I’m not sure if the two girls are behaving more because of the meditation, or if it’s because they’re getting more attention, or if it’s because it’s further into the year… like most things, I don’t think we can really know that,” (Caleb, personal communication, February 14, 2019). Laura, similarly reported that although she notices big differences in her students from year to year in their ability to participate in a “Mindful Minute,” “I don’t know if it’s because of the Mindfulness… I don’t know… at least they’re not losing it…. It’s hard to tell what’s working and what’s not because of all the changes that have happened in the school,” (Laura, personal communication, March 1 2019). And finally, Julia acknowledged that “it’s hard to know what’s working,” (Julia, personal communication, February 13 2019).
Perceived personal benefits

Many of the benefits the teachers reported as seeing in their students they also see in themselves. The teachers talked about their own stress levels and how important it has been for them to take care of themselves—“it’s so important for teachers to self-care… to take time for themselves even in the middle of the day” (Anna, personal communication, March 25 2019) Anna explained—and these breaks in the day often provide them with relief. On staying present in the classroom Georgia recalled a time when she had her students meditate—

For example, yesterday I had this big presentation that I had to do… that’s where my mind was… but heaven forbid it was Valentine’s day, one of the most important days for the kids and I just wanted the day to be over… so we meditated and I told myself to focus on this day with my students and be on their level, I would breathe in and remind myself… this is why you’re here, these people… (Georgia, personal communication, February 16 2019)

Similarly, when Kacey’s mother was diagnosed with cancer she found it very difficult to be in the moment. “Mindfulness is what got me through that,” she explained (Georgia, personal communication, February 16 2019).

Often it is also stressors in the classroom that make it difficult for teachers to cope—not just things external to their job. “It’s really hard being a vessel, holding on to all the sadness in these kids’ lives. If I didn’t have this balance in my own life, I would have retired a long time ago,” Julia reflected. “There are times when I’m feeling a ton… there are times when I would have been more easily ready to yell, to get impatient… but Mindfulness brings me back, paying attention to my body temperature, doing a body scan,” (Donald, personal communication, February 8 2019) Donald said of his own increasing emotional regulation during Mindfulness sessions.

It is anecdotes like those above that have led some of these schools to host meditation and yoga sessions for their teachers. These sessions are not related to the students or teaching Mindfulness but instead are designed to help teachers cope with stressors both internal and external
to the school. 5 of the teachers interviewed reported that their schools have or have had such programs. But, one teacher revealed—

It’s interesting because we actually have an adult class going on here for people in the school. We have about 25 people who signed up to take it but not a lot of them are actually classroom teachers. A lot are like one on one teachers or educational support partners. And I do feel like it could help the teacher stress levels here but a lot of teachers are feeling like it’s just one more thing right now. (Laura, personal communication, March 1 2019)

When asked if she thought anything could increase turnout, Laura said “time is tough,” (Laura, personal communication, March 1 2019).

**Challenges:**

“I think Mindfulness is incredibly useful and powerful. I also think it’s really hard to do. Or even hard to do at all”
(Caleb, personal communication, February 14, 2019)

Although many of the teachers interviewed believe that they have had success with implementing Mindfulness, all of them also discussed challenges they faced or challenges they expect others would face without certain criteria. The following section will be divided into these two parts—the first will discuss possible and/or realized barriers to implementation and the second will investigate factors that the teachers believed allowed them to be successful.

Between the 12 teachers, 10 categories of major challenges were identified. The following table illustrates these challenges:

**Table III:**

<table>
<thead>
<tr>
<th>Teacher Pseudonym</th>
<th>Administrative support</th>
<th>Time</th>
<th>Money</th>
<th>Behavioral issues</th>
<th>Adapting to Developmental Level</th>
<th>Student trauma and mental health</th>
<th>Teacher buy in</th>
<th>School environment</th>
<th>Skill retention</th>
<th>Perceived religious connotations</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Donald</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lucy</td>
<td></td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suzy</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caleb</td>
<td></td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helen</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Julia</td>
<td></td>
<td>X</td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
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As shown in Table III, the following challenges were identified in order from most commonly reported to least: Time (50%), student trauma and mental health (41.67%), behavioral issues (33.33%) and perceived religious connotation (33.33%), teacher buy in (25%), administrative support (16.67%) money (16.67%) skill retention (16.67%) and adapting to developmental level (16.67%) and school environment (8.33%). Brief descriptions of these given challenges follow.

*Time*

The most commonly reported challenge (50%) was finding time—both in training and in implementation. “We don’t really have any free time, we have a pretty mandated curriculum. Types of things like how many minutes of each subject you’re supposed to instruct per day so it can be almost impossible on certain days to fit even in like a 5- or 10-minute practice… so we can only really do 1- or 2-minute activities,” (Suzy, personal communication, February 13, 2019) Suzy explained of the little extra time available in her day.

Another teacher explained that when things really ramp up at her school in January—primarily due to district assessments—she finds it very difficult to practice meditation or yoga with her students. “It’s interesting because that’s when the kids need it the most, right?” (Paula, personal communication, February 6 2019). Anna, who teaches in a self-contained classroom, explained that she thinks “it would have been really hard to justify this time,” (Anna, personal communication, March 25 2019) if she weren’t teaching special education. While she is teaching to standards, they are different and she does not have to follow the New York State curriculum which has strict timing guidelines. When one teacher was asked if he ever thought about trying new mindfulness activities he said “it would be lovely, but yeah, I just like need another two hours of my day to do all the stuff
I want to do” (Caleb, personal communication, February 14, 2019). In summary, teachers already have a lot on their plate—often so much so that they already have to cut activities—so asking them to introduce something new is often met with resistance.

But many of these teachers think their schools waste time on activities when that time would be better spent on Mindfulness. For example, Donald explained that time is a constraint because his administration has already dedicated significant amounts of time and energy into other social emotional learning programs and cannot justify doing more—even though Donald claims this SEL program does not work. “We have a stupid program called positive behavior and intervention or incentives or something stupid… it’s a super monetized system. We’re supposed to give Starbucks cards to kids for doing good stuff… the language is dumb… giving kids stuff is dumb… I don’t believe it but it’s at the very core of our school,” (Donald, personal communication, February 8 2019).

And yet, several teachers expressed empathy for the teachers who reject implementing Mindfulness because of time. Julia, when asked about the greatest challenges she faced implementing Mindfulness, explained that the guidance counselor at their school had just retired and many of her administrative duties had been delegated to teachers until a replacement was found. “So now I end up doing a lot of like secretarial work and I feel kind of resentful because there’s too many things for me to be doing,” she said, “I don’t have time to be stuffing envelopes with the letter that says this kid has been out for six days…” (Julia, personal communication, February 13 2019). This experience made her understand why some other teachers might feel bogged down by Mindfulness—“I can understand now from my own perspective that if a teacher is teaching math and science and doing all this administrative stuff and then on top of all that Mindfulness is not their expertise… they might feel like they can’t really do a good job… you know, feeling kind of the way I am about stuffing the envelopes…” (Julia, personal communication, February 13 2019)
Student trauma and mental health

Although much of the research done on Mindfulness has been with inner city students who have been exposed to great difficulties and perhaps even trauma, many of the teachers interviewed seemed to believe that it would be very difficult to teach them Mindfulness in schools. “The kids who it’s hardest for really need it the most… but we’re not psychologists,” one teacher explained. Similarly, Julia was quite direct in her belief that Mindfulness skills would not be helpful for students with “serious problems” unless more than a 30- or 45-minute dose a few times a week could be provided. “They’re only getting some positive information a few times per week and then they go home and are saturated in the complete opposite environment… that message is lost,” (Julia, personal communication, February 13 2019). Laura also talked about her experience with her students who had been exposed to trauma, giving an alternative explanation why Mindfulness might backfire for this population. “There are some students who have not reacted well to it,” she explained, “I think what happens sometimes is with the breaths in particular… it’s a really challenging tool because paying attention to something inside you or closing your eyes, it can trigger panic more… it’s like when you lay down in bed at night as soon as you quiet your body your mind starts going…” (Laura, personal communication, March 1 2019).

Behavioral issues

Many teachers and schools choose to implement Mindfulness as a means of handling behavioral issues in their students. But sometimes already existing problems—like ADHD, defiance, etc.—get in the way of effectively practicing.

Lucy, for example, talked about how children with attention difficulties often have a very hard time settling into meditation, which might not only be a problem for that student but can also be quite disruptive to the whole class. “I have some kids who it’s hard for them to sit and they want to disrupt or distract others,” she explained (Lucy, personal communication, February 12 2019). And sometimes her students’ ADHD is so severe that they cannot even participate. She has three
students this year who are removed from the class during this time to go read in another room.
Caleb, a high school teacher, also has one student who waits in the hall and he said he has difficulty setting boundaries for other disruptive students. On the one hand, he wants them to participate. But on the other, he believes that Mindfulness as a practice should be a choice. So often he ends up not saying anything and “a lot of the kids use it as an opportunity to use their phone even though I discourage that, or take stuff out of their bag or get up and blow their nose and it just isn’t as a whole as calm of a space as I’d like it to be… then it’s just less beneficial to everyone in the class….” (Caleb, personal communication, February 14, 2019).

A few teachers even discussed how meditation might further aggravate these problems. Suzy, who sometimes goes into other classrooms in her school to try to train other teachers, explains that this often backfires because disruptive students tend to act out even more when there is a new face in the class. “My feeling is that because it’s someone special they’re so focused on like getting attention that it takes away from everyone’s focus,” she said (Suzy, personal communication, February 13, 2019). Suzy concluded that at times like this she worries that these behaviors might throw off the entire day.

Perceived religious connotations
Quite surprisingly, 4 teachers reported having conflicts with parents or other community members over their belief that Mindfulness was a religious practice. One teacher explained that a preacher in her town had started a campaign against using Mindfulness in schools after a Mindfulness non-profit had begun working in a large percentage of their county’s schools. “And he did it,” Alice noted, “all funding has been halted as the PTA decides what to do,” (Alice, personal communication, March 7 2019). “You know, I think they think that Mindfulness has to be related to Buddhism. It doesn’t. I try to chart with these families and tell them I’m not using Sanskrit or indoctrinating students… it’s about quieting the body and breathing,” Paula explained. Suzy said
that even after talking with families, some of her students still do not participate, and that her school has had to create an opt-out form.

Teacher buy in

Teacher buy-in—that is, a belief that Mindfulness works and commitment to implementing it—was a challenge for many of the teachers I spoke to. They experienced difficulties in two ways: 1) they themselves sometimes felt like giving up when results were difficult to achieve and 2) in convincing other teachers in their school to try Mindfulness. Donald said that in his experience “the first few months are tough. My September did not look pretty, but I was committed… two weeks in and I’m like “alright, my kids are still laughing, why am I doing this? It’s painful. I’m just going to stop. Meditation sucks. Fifth graders can’t do it. Oh, the girls can and the boys can’t. Oh, well, you know, my white kids, they’re fine. But these Latino children, they just can’t still.” That kind of stuff starts coming up with less committed people and they believe it” (Donald, personal communication, February 8 2019). Teachers, he explained, must be bought in enough that they are willing to suffer through a rough period and not allow their biases to trickle in. They have to care enough that they are not going to make false assumptions about their students and give up.

Convincing teachers who have not yet bought in was another reported struggle. Kacey, for example, talked about how teachers at her school are closed-minded. “There are people at some staff meetings who are like, “oh, here we go again…” I think they’re kind of older and set in their ways and not as willing to try new things that seem scary… maybe they’re not feeling comfortable enough themselves to be able to put themselves out there…” (Kacey, personal communication, March 1 2019). Similarly, Julia explained—

There’s a few folks that are just uncomfortable with it. It’s not something that they do, they don’t practice Mindfulness…. And then there’s just so many academic demands place on teachers that they just can’t add one more thing… so I go in and try to teach the teachers but I don’t have time to go back and once I’m out the door I don’t see those kids again and the teachers move on and they’ve taken nothing with them” (Julia, personal communication, February 13 2019).
But, Julia said, what these teachers don’t understand is that if they put in the time to get trained Mindfulness would actually make their job easier and they would get a lot more done— “I’m sure they’ve added up all the hours of wasted time on discipling, redirecting, repeating, reteaching…they could prevent all these hours,” (Julia, personal communication, February 13 2019). This is a problem with most things, though, Julia concluded. “It’s almost like years ago when I worked on a nutrition program and they said a dollar for prevention, buying kids healthy foods to save thousands of dollars and later health care costs and no one wants to do it…. It’s all about short-term versus long-term costs,” she recalled.

Administrative support

On how a lack of administrative support can affect teachers’ ability to implement Mindfulness, Anna said “I think people are interested, but I don’t know if anybody would be ready to kind of do it on their own… I think teachers are willing to do new things if they’re given the support… encouragement, training…” (Anna, personal communication, March 25 2019). At Julia’s school she has had difficulty with this— “it’s difficult to get leverage”— because there have been so many administrative changes in the past several years (Julia, personal communication, February 13 2019).

Cost

Cost can also be a barrier to entry because training is expensive. “You know, it’s really expensive to have two trainers come in to teach me…” (Julia, personal communication, February 13 2019) Julia replied when asked why she thought other teachers weren’t participating in Mindfulness training. Luckily, Julia was able to fundraise in her community and receive money for grants, but not all teachers are so lucky or motivated. Donald, who is currently self-taught, explained that the cheapest official training course worth his time he could find was $600. “I wouldn’t be able to get it from my school… I would start taking that course next week if it didn’t cost $600… I want to have
that clarity on research best practices for the kiddos,” (Donald, personal communication, February 8 2019).

**Skill retention**

Two teachers wondered if their students were actually retaining the Mindfulness skills outside of class time and when they were specifically directed to practice. When asked if he has seen any of his students use the skills on his own Donald replied “Nah… but we also haven’t had a very traumatic year and I’m not sure they understand this is something they can use even when things aren’t terrible…” (Donald, personal communication, February 8 2019). Lucy, who stuck to a strict 8-week program which included daily practices, said “after 8 weeks it kind of plateaus… these kids had a hyper dose and then they’re kind of off the hook for the rest of the year and I don’t know what happens to the skills…” (Lucy, personal communication, February 12 2019). She also remarked, “And sometimes they'll ask and I'll say well you don't need my permission to do a breath like if you feel that that's what your body needs just take a second and do a breath. So they're kind of starting to learn that like it's not something we have to do all together kind of listen to your body” (Lucy, personal communication, February 12 2019). Both Donald and Lucy want to figure out a way to better ensure that their students know that in order to reap the benefits they needed to practice outside of class, which they have been unable to do thus far.

**Adapting to developmental level**

Meeting students where they are developmentally can also be difficult. Suzy recalled a mistake she made one time when she tried to have her young students do a Mindfulness activity designed for slightly older children. The activity involved sliding beads across a string as they took breaths and “they just didn’t get it… they need to understand why for it to work…” (Suzy, personal communication, February 13, 2019). Suzy stopped using this activity and started using more movement-based activities which her younger students could fully engage in. But one teacher, Kacey, who has a student with autism, explained her frustration at being unable to find anything that
her student could understand. “There aren’t many resources for teachers on how to adapt these skills to children who are developmentally delayed,” (Kacey, personal communication, March 1 2019) she explained.

School environment

Although most of the above categories could most likely fall under the category of “school environment,” only one teacher mentioned it specifically. Donald, explaining his frustration with the “structure” of his school, said he did not feel like he could talk to other teachers about Mindfulness. “It’s the fault of the structure of our school… no one talks to each other… I don’t even know if other teachers might be doing this… it’s not really the culture of the school to be sharing… it’s not encouraged,” (Donald, personal communication, February 8 2019) he remarked. Because his school is not conducive to collaboration he concluded that he was neither able to get any support from his peers nor try to aide others in adopting Mindfulness into their class.
RECOMMENDATIONS

Given that all teachers reported that they would continue to implement Mindfulness in their class or classrooms because they believe in its benefits, the most important question of the interviews was: what has allowed them to be successful? That is, what are the criteria which set these teachers up for at least some degree of success? What are the things other teachers across the United States need in order to implement Mindfulness and surpass the many challenges outlined in the section above? What are the measures schools can preventatively take so the difficulties do not outweigh the benefits? As Alice explained, “there are lots of teachers at my school who were in it with me at the beginning and now it’s at the wayside with them,” (Alice, personal communication, March 7 2019). What efforts must be made to prevent this drop out? Recommendations which were given either directly or extracted from concluding thoughts are as follows:

1. Teachers should have personal experience with Mindfulness.

“You’re not going to do something if it’s not important to you… you have to care about Mindfulness, to see it work in you,” (Julia, personal communication, February 13 2019).

“A lot of my teachers in my school won’t do it because they are nervous about teaching something without being really experienced in it…. It’s kind of like, you’ve got to put on your own oxygen mask before you try to help someone else,” (Laura, personal communication, March 1 2019).

“It makes a big difference that I can say to my kids “hey, I do this too, and it really works,”” (Alice, personal communication, March 7 2019).

“You have to practice what you preach, that’s how your kids will respect you…” (Anna, personal communication, March 25 2019).

“The bottom line is that you’re not going to continue to do something if it’s not something you care about,” (Caleb, personal communication, February 14, 2019).

2. Classroom teachers should implement, not outside trainers.

“It’s so important that I’m a member of the school. With an outside person it’s kind of like substitute teacher syndrome and the kids will think ‘what am I going to get away with today?!’… Even when I have tried to go into other classrooms and the main teacher scoots out for a meeting it’s really hard, the kids are really curious about what the heck I’m doing in their room
and it’s hard for them to focus or take it seriously,” (Julia, personal communication, February 13 2019).

“At this age, they need it modeled by the adults in their life they already know and trust. It helps tremendously if there’s a culture, if the whole school is on board with it instead of some stranger coming in and then leaving… We’ve tried that and it doesn’t work,” (Laura, personal communication, March 1 2019).

“If I’m in another class and trying to teach some other teacher’s class and the teacher isn’t paying attention the kids know, they’re like ‘this must not be that important if the teacher is grading papers,’” (Kacey, personal communication, March 1 2019).

“Maybe in another community that experiences less challenge you could have an outside trainer doing this stuff, but you know, I think all kids today are overexposed… in urban communities there is a need for someone who is trustworthy,” (Anna, personal communication, March 25 2019).

3. Teachers must have a strong relationship with students prior to implementation.

“You know, we’ve done some mock exams and when I’m in that room with students that aren’t my own and I try to do a mindfulness exercise with them and they’re all complaining and there’s all this skepticism… there’s a relationship portion that is critical to it…. When you’re asking them to close their eyes there is a level of trust that they have to know exists, they know I’m managing the space, that they’re not unsafe… I think they’re only able to engage if they know they are safe and they know that nothing is going to happen to them because I won’t allow it,” (Anna, personal communication, March 25 2019).

“It really works best a few months in, when the kids know who I am and they have a relationship with me… early in the year, they’re like ‘who are you and what’s this new weird thing you’re trying to get me to do?’… September was rough…” (Donald, personal communication, February 8 2019).

4. Teachers must use trauma-informed practices.

“You have to be aware of the trauma some of the kids have experienced… We really try to push that you don’t have to close your eyes… I always give them the option to just listen and if it becomes too much I say ‘give me a sign, this is our special sign… Give me a thumbs up or thumbs down and I’ll give you a nod and you know you can excuse yourselves to get a drink or go to the office or whatever…” (Laura, personal communication, March 1 2019).

“Breathing exercises or meditation must be done carefully, they must be trauma-informed because asking students to do these things can be triggering,” (Anna, personal communication, March 25 2019).

5. Teachers must buy in.

“We as teachers need to do anything we can to make our work more beneficial… A professional doesn’t sit there wondering whether or not they had their lunch break or their prep time today…
You know, the teachers at my school have to stop knocking at the principal’s door if they didn’t get their full 30 minutes… They have to commit,” (Julia, personal communication, February 13 2019).

Anna, who had previously worked at her school through the City Year program, talked about what happens when you have not bought into something as a teacher. “A lot of the time when I was working for City Year there was this really strong culture, there were certain things like dinging this bell or these sayings, and I hadn’t bought into those and that made it hard to hold the people I was then training to use these skills accountable…. It wasn’t genuine and they could recognize that… The team I ended up leading weren’t sold on these little City Year things because I wasn’t… I wasn’t on board and I felt weird about doing it… You could look at my team and easily know we hadn’t drunk the Kool-Aid and that made a difference in how the kids approached things, too,” (Anna, personal communication, March 25 2019).

6. Teachers must adapt curriculum to an appropriate developmental level.

“They couldn’t sit still for more than 5 minutes… They’re not ready for anything longer… It wouldn’t be appropriate at all to have them sit for that long… it would not be reasonable to ask a kid to do that,” (Helen, personal communication, February 21 2019).

“A lot of talking just doesn’t work. I talked a lot at the beginning and that just didn’t do much. I have adapted really to just doing more, so like something more tactile… We activate our senses… Or I’ll bring in a cotton ball and I’ll have a scent on it and we’ll pass it around that makes them more engaged, it makes them more curious… I do more activities to model what my words are saying because that’s what kids need,” (Laura, personal communication, March 1 2019).

“They love this thing called a Hoberman sphere… there’s no better way to demonstrate your lungs filling and collapsing, which they didn’t really get before and they need to get,” (Kacey, personal communication, March 1 2019).

7. Mindfulness should be embedded into everyday workings of the classroom, not just a set amount of time.

“Mindfulness isn’t just doing a mindful minute or doing yoga poses for 30 minutes once a week, it’s a way that a teacher approaches their class and the language the teacher uses… it’s a holistic approach to teaching,” (Paula, personal communication, February 6 2019).

“One teacher said to me, ‘I think you would have more sticking power if you tested them on it because if they don’t have to show it, if they’re not going to have a quiz or a test on it they feel they don’t really have to learn this stuff.’ That’s how efficacy is measure in this school and this system! And that says it right there. This isn’t just some one-and-done thing, it’s a way of teaching, an approach to teaching, not something to just get done,” (Julia, personal communication, February 13 2019).

“I think the biggest hurdle was probably a change in mindset… it’s easy to think, ‘great, just one more piece of my puzzle that I’ve got to do,’ but it’s not this set amount of time… It’s just part of my day, I don’t think ‘okay now I’ve got to do Mindfulness,’ it’s intertwined in everything,” (Alice, personal communication, March 7 2019).
8. Teachers must try to educate their students on the benefits of Mindfulness.

“I think it’s important to give context… To explain that this is an opportunity to change the way you live… I had a reading or two or one of my classes about how short moments of meditation can bring down stress hormones, improve cognitive functioning, that sort of thing… The research seemed to cue them in because they’re interested in science and improving themselves… I feel pretty strongly that if you’re going to do something that is based on data you should provide the people you’re doing it with some of that data…” (Caleb, personal communication, February 14, 2019).

“That buy-in is something that you know either happened for the kids or it didn’t, and it was a pretty quick decision on their part of like this is worth it or it’s not and I think that decision may have been swayed by how purposeful they found it and the structure of how it was presented,” (Donald, personal communication, February 8 2019).

9. Teachers should involve families.

“I’m not so sure about our model. Really, you have to teach the parents… The symptoms we see in these kids start someplace and in order to really make a difference you have to change the culture at home where the kids are spending most of their time. All these families tell me they’re always rushing around… We really need to start at the source and that’s in the home with the family,” (Julia, personal communication, February 13 2019).

“I had an open house with all the families and I explained what I was doing… I think that helped a lot, especially for the parents who were skeptical and inclined to tell their kids not to participate,” (Paula, personal communication, February 6 2019).

“For the kids at our school who are from families who are into holistic health, the whole child approach—you know our town is full of yoga studios and folks who care about this— those kids who have balanced homes are the ones who this isn’t unfamiliar to and they’re essentially learning this throughout their whole childhood experience not just a weekly bite, it’s working for them much more,” (Georgia, personal communication, February 16 2019).

10. Teachers need to be patient because results do not come quickly.

“This does not happen overnight, I’ve had to say to myself ‘okay, slow down your horses,’” (Julia, personal communication, February 13 2019).

“A magic bullet cure is never true… it takes time,” (Laura, personal communication, March 1 2019).

11. Teachers need to dedicate time and resources to ensure that students retain skills across situations and time.

“When kids leave my class we don’t leave them with visuals or a workbook or a binder, it’s about practice, but that’s not enough if they don’t have a tool or cd or app or device that helps them carry on practicing,” (Julia, personal communication, February 13 2019).
“You have to teach them that this isn’t something that we just do in the morning or when we tell them to… What are we doing if we’re not explaining that?” (Paula, personal communication, February 6 2019).

12. School administrators must be informed and involved in teachers’ practices.

“I do think you need to have not just the support of the teachers and parents, but you need to have the building administrator’s support. That is huge… You can’t do it without them. You really can’t… You have to have them to say ‘we know it’s another thing on your plate but we’re doing it,’” (Lucy, personal communication, February 12 2019).
LIMITATIONS

The greatest limitation of this research paper was my inability to obtain a diverse group of participants in terms of their feelings about Mindfulness. Unfortunately, due to snow-ball sampling and the fact that teachers who have had success were more likely to be keen on speaking with me, my sample was limited to teachers who themselves had personal experience with Mindfulness and have found it to be beneficial to their students. This is not representative of teachers across the United States. Additionally, the sample of teachers was small and thus conclusions cannot be applied to the teacher population at large. Future research ought to seek out more teachers who stopped practicing Mindfulness with their students.

Interviews and qualitative analysis also have several limitations. Because of face-to-face data collection, teachers may have chosen not to disclose all information with me for a variety of reasons such as worrying that their school would read this paper or in order to be viewed favorably by me. I may have also coded these interviews according to my biases. Another researcher may have understood and transcribed the interviews in different ways. Moreover, although I tried to stick to my interview questions as best as I could, at times conversations veered in different ways and thus not every participant was asked the exact same questions and not all interviews lasted the same amount of time. And finally, additional methods such as observations were not conducted.
CONCLUSION—Gaps between research and practice

I originally sought to investigate teacher perceptions of Mindfulness in classrooms because I had a hard time believing it really worked. Upon reading hundreds of news and scholarly articles on the topic, which essentially claimed that this simple intervention could solve all the problems plaguing our school system, I became dubious. I grew even more skeptical when I could not find a single research paper which criticized Mindfulness nor investigated the challenges in implementing it. And so, I decided to talk to teachers, expecting them to reveal the ‘truth’—that Mindfulness was bogus, a waste of time. But I did not find that teachers disliked Mindfulness. In fact, not one teacher reported it as ineffective. Instead, each one informed me that they have found Mindfulness to be an extremely valuable and worthwhile teaching tool.

I did, however, discover a glaring gap between research and practice. The conflict was not a disparity in how beneficial Mindfulness is—my original bias—but in how these benefits are and should be achieved. What this paper reveals, then, is a disconnect between the scientific community and the real world—the world of the students, teachers, and schools.

The model that the majority of the research on Mindfulness in schools uses has 3 main characteristics:

1) It measures success in terms of quantitative student outcomes.

2) It uses programming for a set number of weeks and then stop.

3) Outside trainers or school psychologists are the implementers, not the classroom teachers.

When I asked teachers about this model, every teacher disagreed with it fundamentally. That is, they did not believe that this way of implementing Mindfulness could be beneficial for students and identified very different factors as being crucial for their own success in their classrooms.
Arguing that Mindfulness is already extremely difficult to implement, the teachers explained that they believe that the only reason they were eventually able to see results was because they are known and trusted teachers who themselves had personal experience with the skills they were teaching. These criteria stand in complete conflict with the research and could be tremendously problematic if schools start implementing Mindfulness based on the factors that the studies put forward.

But how, then, do the studies demonstrate such beneficial results if teachers say their model is flawed? Perhaps because of research design. As noted earlier, the majority of papers published on Mindfulness in schools are:

1) Not randomized control trials.
2) Conducted by study authors and for-profit companies who would personally benefit from positive findings.
3) Voluntary in participation.
4) Reliant on self-report data.

These factors have the potential to lead to biased and/or inaccurate results. If we are to use research to back up programming in schools—as we should—we must ensure that the studies we cite are rigorous and investigating what teachers see as problems in their schools.

We must also ensure that the goals of teachers and researchers are aligned, as are their ways of measuring whether or not these goals are attained. The papers on Mindfulness in schools report that their programming increases attention, executive functioning, emotion regulation, and academic achievement. But when teachers were asked why they decided to try Mindfulness with their students they identified an increase in student mental health problems—particularly anxiety—and a desire to help their students to cope early. They did not mention academic achievement nor classroom management which are foundational to the current research’s apparent quantifiable success. The changes that the teachers hoped to see in their students, on the other hand, were not measurable by
tests or numbers. They were not looking for changes in grades or executive function. Rather, Mindfulness was seen as a preventative strategy which by nature is not testable in the same way.

Furthermore, and perhaps most importantly, an analysis of the twelve teacher interviews shows that even if the model proposed by research does work, it cannot be implemented across the country given the challenges schools face. First, most schools do not have the funds to pay for outside trainers let alone the costs of training their own teachers. Second, this model requires large chunks of time which is not available in classrooms long term. Third, many of the students who need Mindfulness the most are the ones who present the greatest difficulties in participating in Mindfulness activities, whether that be related to trauma or behavior, neither of which are focuses of the studies on this topic. Forcing these children, who exist in most public-school classrooms, to participate could exacerbate their issues, doing more harm than good. In summary, there is great variety across the country in terms of the time and funds available to schools and in the populations of students they serve. A model which essentially functions on having unlimited time and money, and on students who come from families who have the knowledge and resources to voluntarily participate in such programs is not one which will fit the United States education system as it stands.

Instead, researchers ought to find a way to incorporate the voices of those who know the schools and students best—teachers—in order to improve their models. There are known and trusted teachers, such as the twelve I interviewed, who are doing meaningful work by finding ways to make Mindfulness feasible in their classrooms. These real-life teachers have more to teach us than outside of school trainers do. And so, our questions should be directed towards them. But until we can bridge this gap between research and practice it is irresponsible to portray Mindfulness as a panacea for many of the problems schools, their children, and teachers face today.
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Appendix

Attachment A
Email template:
Dear ________,

Thank you so much for agreeing to speak with me. As ______ mentioned, my name is Diana Woodward and I am a senior at Yale University. I am part of the Education Studies Scholar program and as part of the program we must complete a Senior Capstone Project. I am conducting research on teacher perceptions of Mindfulness-based curricula in elementary school classrooms.

I am therefore hoping to interview elementary school teachers in the United States at schools which require or strongly urge them to incorporate Mindfulness into the everyday workings of their classrooms. If you agree to participate, the interview will only be about 45 minutes to an hour and can be done in-person or over Skype if that is easier for you. I am unable to provide compensation for participating in my research, but you would be contributing to the growing body of knowledge about Mindfulness in education. Unfortunately, there is a lot of research looking at student outcomes, but very little on the teacher side. I am hoping to help fill this gap. Additionally, this will hopefully be an interesting conversation and allow you to voice your opinion and experiences about teaching. I really believe that teachers are the best resources for other teachers.

If you have any interest in participating or would like to know some more information about the study I would be really excited to speak with you over email or over the phone. This topic is so important as student mental health concerns are increasing and teacher stress levels are rising. ______ has told me about your work and expertise in the classroom, and I think your voice would be really valuable in my research.

Additionally, if you know other teachers who might be interested in this research please do send me their contact information. I am trying to talk to as many teachers as I can.

Thank you so much. I really look forward to hearing from you.

Best,
Diana Woodward
202-257-7623

Attachment B
Interview questions:

1. Tell me about how you got into teaching and your process of becoming a teacher.
2. Tell me about the children you teach.
3. How did you get involved in mindfulness?
   1. If school requires/ urges:
      a. Were all teachers required to become trained in mindfulness? If not, why were you picked? Or was it voluntary?
      b. What knowledge did you have about mindfulness prior to your training?
4. How were you trained in mindfulness?
   a. If self-trained: What books/resources did you use?
   b. If trained by a company hired by the school/psychologists/social workers/etc.:
      i. Tell me about the training process.
      ii. What kind of tools did the trainers give you?
         1. Which were successful?
         2. Which were not successful?
      iii. Did the training leave you feeling sufficiently prepared to implement mindfulness into your classroom?
         iv. Is there anything you would change about your training experience?
5. How have your own perceptions of mindfulness changed over time?
6. How did your students initially respond to mindfulness? Were they open to it?
   a. How did their perceptions change over time?
7. How did parents respond to mindfulness?
8. Walk me through a typical mindfulness ‘session.’ How do you use mindfulness in your classroom?
9. Have you noticed changes in your students?
   a. Were there certain students who were helped by mindfulness?
      i. If yes:
         1. tell me about these students.
         2. Can you give me an example?
   b. Were there certain students who were not?
      i. If yes: tell me about these students.
   c. How has your relationship with your students changed, if at all?
10. Do you think Mindfulness has changed your classroom environment?
11. How has your school supported you through the process of implementation?
    a. Has your school continued to stay involved after the first couple of weeks?
    b. How does the administrations support you?
    c. How could your school support you better?
12. How has mindfulness affected you personally?
    a. Do you use the skills in your own life?
    b. Does Mindfulness make your job as a teacher easier or harder?
13. What have been the biggest challenges in implementing mindfulness?
14. How have other teachers reacted to your use of Mindfulness?
15. What do you expect would be barriers for other teachers?
16. Is there anything else you would like to share with me about your experience?