

The Effect Outdoor Mindfulness Activities have on Elementary Students' Mental Wellness





each time I began to unravel during this process and for always knowi





feelings and able to act with intention rather than heated emotion<sup>7</sup>. MBSR has been said to help participants “acquire a more adaptive approach to dealing with life’s challenges” as one may be able to see the bigger picture, think more broadly and exit their immediate feelings<sup>8</sup>.

As we continue to see a rise in youth mental health challenges, it is necessary younger generations have access to tools that may help navigate the complexities of the world while cultivating a respectful relationship with our environment<sup>9</sup>.

In collaboration with staff and students at Loreto Elementary school, this research analyzed the impact that outdoor mindfulness activities have on children's mental wellness. Data and further evidence was gathered through qualitative surveys to better understand the elementary students' feelings of wellness before and after an outdoor mindfulness activity. Along with a survey provided to the students, conversations with various mindfulness practitioners, educators and researchers helped provide a broad understanding of the effects outdoor mindfulness activities may have on elementary students' mental wellness.

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Mental health challenges are a prevailing issue among adolescents today including the youth of California and Los Angeles County. Previous research has connected various determinants of health to an increased impact of mental health issues. Some include: poverty, gender and gender identity, race and ethnicity, immigration status and age among other determinants<sup>10</sup>. The specific neighborhood central to this research project is Northeast LA,

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<sup>7</sup> *What is MBSR?*, (2021)

<sup>8</sup> Economou et al., (2015)

<sup>9</sup>Reback, (2010)

<sup>10</sup> (Torralba, 2021)

where Loreto Street Elementary School is located. Many community members in this neighborhood are native Spanish speakers and experience economic disadvantages<sup>11</sup>.

Loreto Street Elementary is a public school located in Northeast L.A. a part of a

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garden onto Loreto Street Elementary School's ground<sup>14</sup>. Ms. Segura is dedicated to bringing mindfulness practices to communities with limited exposure to meditation practices. She teaches in various environments such as non-profit organizations and public schools and facilitates mindfulness activities in both Spanish and English.

A briefing published January 27, 2021 shared that 45% of California's youth had reported struggling with various forms of mental health issues, with a third of them experiencing serious psychological challenges that potentially could interfere with their academic and social functionality<sup>15</sup>. The authors of this study looked at the social determinants of health that could be playing a role in these staggering numbers and found that poverty, gender and gender identity, race and ethnicity, immigration status and age all affect one's mental health. The authors share that it is "imperative... to increase access to mental health treatments for all adolescents and to improve preventive measures for those groups at particularly high risk" in order to address the rising rates of mental health challenges being expressed today<sup>16</sup>. The 6z. has ha

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LAUSD students showed that 88% of students reported experiencing three or more traumatic events in their lives with 55% of these students showing active symptoms of PTSD, depression and anxiety<sup>18</sup>.

The Urban and Environmental Policy Institute (UEPI) is part of Occidental College and is an applied research and advocacy center. Their mission is to “advance community-driven programs and policies to build healthy, thriving communities while achieving social, economic and environmental justice”<sup>19</sup>. Professor Romero is the director of the Farm to Preschool Program and Professor Galarza is the health Education Manager for the LA Farm to School Initiative which is part of the UEPI. In the Spring/Summer of 2021, UEPI staff congregated to develop a plan with the objective of creating a healthier and more holistic school environment at Loreto through community engagement and developing best practices that could be replicated at other urban Title 1 schools. The objective of this project was to develop a greener community campus at Loreto through a mindfulness garden space. Tools would be provided to caregivers and teachers to incorporate mindfulness practices into the students daily experience. The UEPI faculty recognize that many students within the LAUSD system, including at Loreto Street, live below the poverty level, with 92% qualifying for Free and Reduced Lunch. Many Loreto families are also affected by disproportionately high rates of incarceration. This project is aimed to create a space on the Loreto campus that supports the holistic well-being of students and families and is in direct contrast to the prison system affecting many in this community.

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<sup>18</sup> *Blueprint for Wellness*, (2014)

<sup>19</sup> Occidental College, (2021)

School-Based Psychiatric Social Workers (PSWs) services may be funded by individual schools within The Los Angeles Unified School District. These services are aimed at providing a range of preventive, early intervention, and acute mental health assessments and treatments in group, individual, or family modalities. PSW's are present to help address mental and emotional wellness of students by helping develop and sustain a caring school environment that promotes problem-solving skills and positive behavior support. Currently, LAUSD School Mental Health Clinics and Wellness Centers are providing individual and family therapy for LAUSD students of all ages. These services are currently being held remotely by telephone or video conferencing.

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### ***Introduction***

There is a great deal of existing literature on the mental health of elementary students, the effect green space has on one's mental wellness and the role mindfulness has on mental wellness. This research is centered around the role outdoor mindfulness spaces have on elementary students' mental wellness. Analyzing pre-existing research provides a broader and more robust understanding of the beneficial role the outdoors and mindfulness activities have on one's health, with a particular focus on elementary students mental wellness. It is evident that the integration of mindfulness into schools can benefit elementary students mental wellness and

decrease students feelings of mental unrest<sup>20</sup>. With the staggering levels of mental health challenges seen in youth today, it is necessary schools begin addressing this rising issue of mental health challenges among younger populations. Both worldwide and countrywide school administrators are beginning to think critically and creatively about how to help their student body navigate their mental health challenges. The inclusion of green space into communities and mindfulness activities in schools has shown to help improve younger populations' mental health. Previous literature related to mindfulness, green space and elementary kids mental health all demonstrate how these areas can connect to improve students mental wellness through creative measures. The studies being reviewed are from trustworthy journals and have been published within the past 20 years making the information more relevant and applicable to the research that has been conducted during the academic 2021-2022 year.

### ***Mental Health Within United States Youth***

The statistics of mental health disorders are staggering- suicide being the third leading cause of death in adolescence (15-19) worldwide- with mental health challenges likely to increase with the prevailing effects of climate change, racial injustices, worldwide inequities, global pandemics and more<sup>21</sup>. Globally, depression is one of the leading illnesses and causes of disability among teens<sup>22</sup>. On a national level, 13.01% of youth (ages 12-17) reported they suffer from at least one major depressive episode, a report found in 2020<sup>23</sup>. Emergency room visits following suicide attempts by girls age 12 to 17 spiked tremendously<sup>24</sup>. Even with these

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<sup>20</sup> Schonert-Reichl, (2015)

<sup>21</sup> The Johns Hopkins University, (2022)

<sup>22</sup> *Adolescent mental health*, (2020)

<sup>23</sup> *2020 mental health in America - Youth Data* (2020)

<sup>24</sup> Graham, (2021)

enormous reported rates of mental health challenges and suicide attempts, 59% of American youth with major depression do not receive mental health treatment of any sort<sup>25</sup>. Beyond adolescence, younger children are experiencing mental health challenges and behavioral difficulties as well with an estimate of 10%-20% of the world population of children having mental health disorders and problems<sup>26</sup>. Eric Rossen and Katherine C. Cowan's journal article , shares how schools are ground zero for the effects of mental health problems in children and are also crucial participants in providing services to their student bodies. And yet, far too many schools are met with inadequate resources and services to provide the necessary care to their student body<sup>27</sup>. More than one in six students experience some form of mental health challenge and yet this number is likely to be higher as many youth do not receive the help, and therefore the diagnosis, they may need to gain adequate care<sup>28</sup>. Collectively , this number represents approximately 10 million students who need professional interventions in the K-12 public school systems<sup>29</sup>. These mental health problems can greatly interfere with a student's ability to concentrate, have positive relationships and cope with adversity. With these staggering numbers it is essential resources are allocated to schools and mental health professions to help provide students with the adequate care and help they may desperately need. In fact, Eric Rossen and Katherine C. Cowan shared that schools are "the largest de facto provider of mental health services" and that within some rural school districts, schools are the only source of mental health support for the students. Providing school-employed mental health professionals can help reduce many of the common barriers students face when

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<sup>29</sup> Rossen, Eric and Katherine C. Cowan. "Mental Health in Schools: A Call to Action." *Journal of the American Academy of Child and Adolescent Psychiatry* 43(10): 1203-1210 (2004).

striving to seek help such as cost, schedules, transportation, and stigma. Mental health rates within adolescents are disturbingly high and the Covid-19 pandemic has only intensified these mental health challenges. The increase can be attributed to the multitude of routine disruptions such as school closures, social isolation, financial hardships, and gaps in health care access<sup>30</sup>.

Throughout the pandemic, parents of children ages 5-12 have reported elevated signs within their kids of depression, anxiety, psychological stress and worsened emotional and mental health<sup>31</sup>.

Gayle Porter echoes Eric Rossen and Katherine C. Cowan's statement that integrating mental health services into school systems can help provide students with accessible care to tend to their mental wellness. Porter shares in their article

how "school counselors are in a unique position to facilitate the collaborative process needed to ensure the provision of comprehensive, accessible mental health services"<sup>32</sup>. There are rising rates of mental health challenges among adolescents which are simultaneously being met with inadequate and inaccessible mental health resources. Including mental health resources and services into school systems could provide equitable services to youth regardless of one's insurance, transportation abilities, stigma etc. The integration of early mental health interventions has the ability to improve children's future outcomes and their way of interacting with other classmates. In Randall Reback article in the

he talks about the "valuable spillover effects on peers, classmates, teachers and family members" that the inclusion of mental health services in schools can have. Not only is the individual benefiting from this personal work, the overall community can better themselves as well.

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<sup>30</sup> Nirmita Panchal et al., (2021)

<sup>31</sup> Nirmita Panchal et al., (2021)

<sup>32</sup> Porter, (2000)







skills"<sup>40</sup>. Mindfulness inclusion in school classrooms can help students attain more mental clarity, stability and therefore perform higher. Mindfulness has expanded beyond its original eastern roots and has been introduced into the western education systems to enhance intentionality which has been shown to provide optimal conditions for learning and teaching for all pedagogical approaches<sup>41</sup>. Scientists have been able to analyze the effects of stress on a child which have been shown to be significant factors in the formation of one's mental capacity. For instance, stress damages the architecture of the developing brain which can lead to vulnerability to lifelong problems. The inclusion of mindfulness can help strengthen students ability to relate to any experiences in a responsive manner rather than reactive and reflective which support one's ability to regulate their emotions and be more intention and aware of their emotions and actions<sup>42</sup>. Many children will begin to express learning, behavioral, attentional and/or mental health challenges that can be stress induced within their school days. Because of this, schools make an ideal setting to offer useful interventions to help students navigate these challenges and promote healthy brain development and functionality through educating students and teachers on stress resilience through mindfulness<sup>43</sup>. It is evident that the inclusion of mindfulness in school systems has many benefits including enhanced attention and therefore learning capabilities, decrease in mental health challenges among kids, more attuned teachers, and lifelong brain development benefits.

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<sup>40</sup> Weare, (2012)

<sup>41</sup> Meiklejohn et al., (2012)

<sup>42</sup> Meiklejohn et al., (2012)

<sup>43</sup> Meiklejohn et al., (2012)

## ***Access to Residential Green Space During One's Childhood and its Effect on Children's Mental Health***

In order to conceptualize green space and its effect on children's mental health, one must understand the definition of 'green space'. The journal article by Matilda Annerstedt van den Bosch et al., defines urban green spaces as "any land that is partly or completely covered with vegetation, such as parks, community, allotment or residential gardens, urban forests or street trees; however, definitions vary and depend on the local and cultural context..."<sup>44</sup>. There is a great deal of literature exemplifying the healing components green space can have for children's mental wellness. In fact, Dr. Engemann, a postdoctoral researcher in Denmark, has been able to understand how access to green spaces in urban centers can help decrease psychiatric disorders while providing physical health benefits for children<sup>45</sup>. Her research demonstrates the necessity in incorporating green spaces into urban centers in order to improve the communities mental health and reduce the rising rates of psychiatric disorders. This creative mechanism to address mental health challenges is crucial to incorporate into schools systems in order to help create positive impacts on adolescents' mental well-being<sup>46</sup>.

Previous research done in Denmark uncovered that higher amounts of green spaces are often associated with stronger mental health and can enhance psychological restoration through beneficial association with the amygdala- a part of the brain that helps process strong emotions such as fear- and can help alleviate the negative effects of dense and noisy city environments that increase stress<sup>47</sup>. Green space provides a healthy respite of nature

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help restore one's mental health and decrease stress related di

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children are multisensory and therefore the more space the young child has to learn through sensory and physical activity outdoors— such as observing the changing clouds, the moving leaves, the cycling plants, the varieties of colors and sounds, the vast range of permitted behaviors (shouting and running and climbing) and outdoor space offers,— the more physical, cognitive, and emotional development will occur. This increased development happens in a more pronounced manner outdoors than it would from a manufactured indoor environment<sup>53</sup>.

### ***Conclusion***

There is a great deal of previous literature related to mindfulness and mental health, green space and mental health.

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School. This survey was administered before and after students engage wi



Sigrún Sigurðardóttir	Associate professor and Lecturer in Health Sciences at the University of Akureyri	University of Akureyri, Iceland
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Each interviewee offered useful insight that helped better understand the effects outdoor mindfulness activities may have on elementary students' mental wellness. Each individual is an expert in their field and very dedicated to their area of expertise. All share a common motivation to help enhance healing and wellness for others and utilize their specific areas of work to do so. The chart above lists the interviewees and their occupations. From these interviews, it became evident that mindfulness is a highly beneficial teaching practice to incorporate into school settings, that outdoors should not be overlooked as a teaching measure, and that students in today's time are not well as they are faced with tidal waves of anxieties related to ever-changing health unknowns. Mindfulness is an accessible and lifelong tool that helps the practitioner attain more mental clarity and stability. Themes that arose include how mindfulness helps people self-regulate their emotions and take time to process before reacting in situations, that nature helps create more feelings of peace and quiet, and that Covid-19 has negatively influenced the mental health of students and school teachers.



The main findings identified through these conversations with the mindfulness practitioners is that the practice of mindfulness is an accessible and lifelong skill one can continually use to attain feelings of peace and wellness. The two practitioners who spoke, Rosamaria Segura and Anna Forward, discuss how mindfulness is key in helping one gain tools in how to self-regulate one's emotions and that this can help manage and reduce





Anna Forward sees similar stress levels in her students. She shares

The stress of Covid-19 has challenged everyone and everyone's mental health. There is a higher need for social and emotional support.

As both educators clearly state, mental health challenges are prevalent issues in today's society and within the health of their classrooms and have only intensified with the ongoing pandemic which continuously disrupts lives.

The principal of Loreto Street Elementary school was a huge supporter of the inclusion of the outdoor mindfulness garden and worked closely with the Urban and Environmental Policy Institute at Occidental College to help integrate this mindfulness space onto her school grounds. There was initial hesitation within the school's community revolving around the introduction of meditation practices into the curriculum. Cultural differences in approaching mindfulness was important to be wary of which Principal Arciniega navigated through well. She shared that people may be closed to the idea of 'meditation' but open to 'mindfulness' which was how she shaped the introduction of this space to the community. She shared:

I wholeheartedly believe that it (the mindfulness garden) has become a need for our students mainly because of all the things we are going through. My hesitation at the

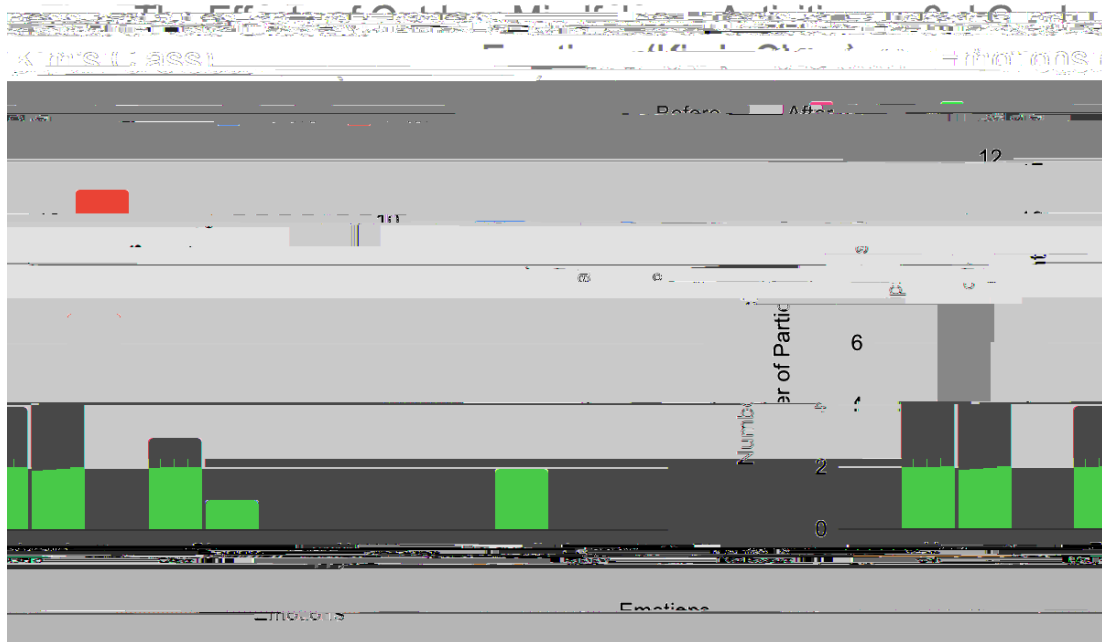
beginning was that some of our families culturally have a little bit of an initial hesitation with anything that has to do with meditating,



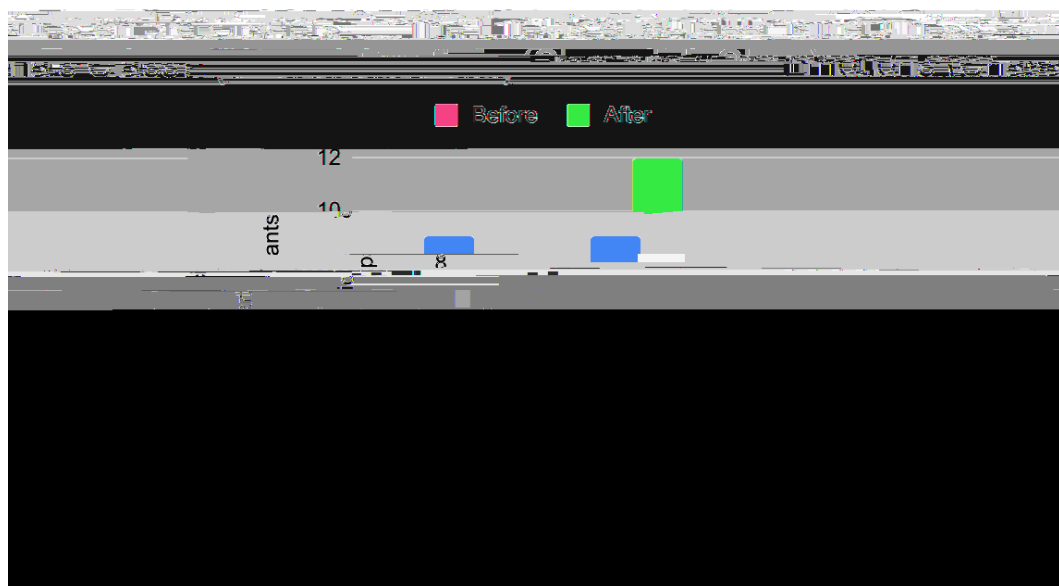
quietness comes to life

During 189





In Graph 1 there are two students entering the space feeling "sad", although after the activities there is an increase in "happy" and "relaxed" and zero in "sad".



Similarly in Graph 2, the majority of students are feeling "happy" and "relaxed" while the amount of "nervous" students did stay the same.

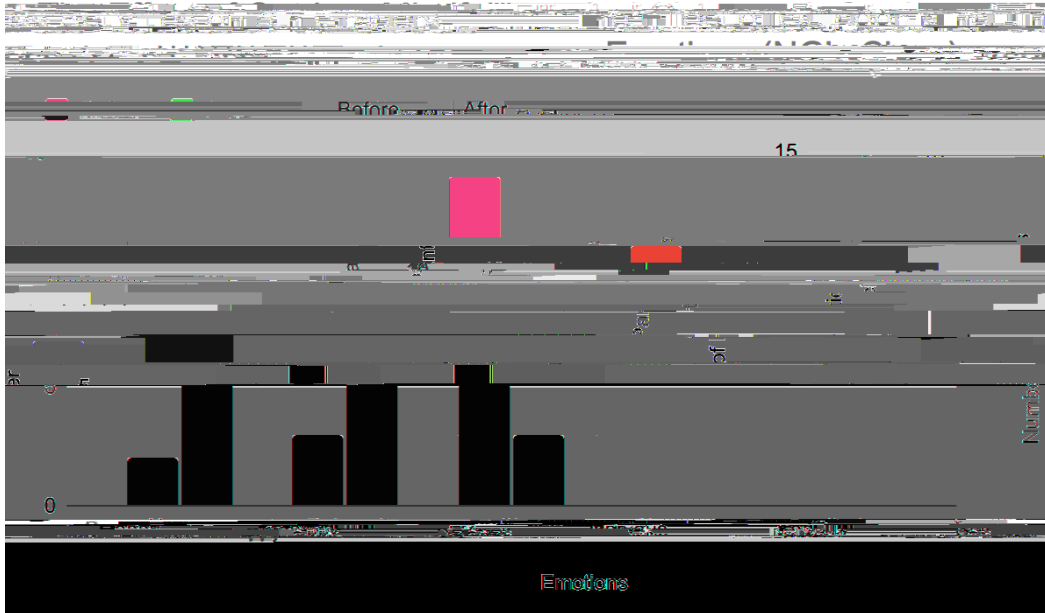


Graph 3 demonstrated outlying data. While the majority of participants remained feeling "excited" and "relaxed", participants also reported feeling "nervous" and "sad" participating in the mindfulness activities. This was not anticipated. No other classes participating in this study demonstrated an increase in negative feelings after engaging in the practices and yet these numbers are important to take into account. While mindfulness has been discussed as a positive inclusion into a classroom setting by professionals (mentioned above), it is possible that students can feel an increase in negative emotions during these activities or that other unknown emotions can surface during this time creating nervousness.



Graph 4 suggests a sampling error where not all students participated in the survey after the activities. From the information present, students remained feeling positive and did not experience an increase in negative feelings after participating in the outdoor mindfulness activities.

Graph 5 depicts a clear increase in participants' feelings of being "happy" after engaging in the activities. On a scale of 1 to 5, participants reported a mean score of 2.5 before engaging in the activities and a mean score of 4.5 after engaging in the activities.



Lastly, Graph 6 shows a positive effect mindfulness has on students' feelings of being "happy". While the majority of students initially reported feeling "ok", the number of students feeling "happy" and "relaxed" increased tremendously after participating in the outdoor mindfulness activities

Overall there is a general trend of participants moving from 'nervous' and 'sad' emotions to being "Happy", "Excited", and/or "Ok" after participating in the outdoor mindfulness activities. Something to be aware of is that a potential decrease in one's feelings of relaxation, for instance, does not mean the participant becomes less relaxed, it means that that participant may have moved from feeling relaxed to feeling happy, as an example. There is no interrelation

between emotions as one cannot see individual movements between emotions and rather the larger group's observation.

From these graphs, one can presume a positive effect the outdoor mindfulness activities have on the students' wellness. Overwhelmingly, students felt "ok" before engaging in the activities which altered their emotions, making them feel "happy" and "relaxed" after participating in the outdoors mindfulness practices. It is important to consider how these data collections may be biased measurements. There is no one clear definition of what being "happy" may mean so because of this, there is a lot of subjectivity within these findings. This goes to say for all of the various emotions include three es

January of 2021, a briefi

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prioritization of self care techniques in schools. All of these gaps are



incorporate this model into their school district. Apparently LAUSD has had issues complying with Proposition 39 and have experienced lawsuits centered on LAUSD's continued non-fulfillments to share public school space with all public school students in the LAUSD area, despite clear and unequivocal obligations under the law. Since then the LAUSD Bond Citizens Oversight Committee has met more regularly to discuss the distribution of funds, such as the repair of school facilities, but have not mentioned creating greener schoolyards at their schools. A reallocation of the Social Bonds finances can help increase the possibility of creating equitable green schoolyards for elementary schools in LA. The inclusion of green schoolyards would be a community wide project including participation from parents, students, teachers and administrators regarding the design of their green schoolyard. While the yard would provide a space for fresh air and engagement with nature, it also would provide agency to the community as everyone would have a potential voice in the creation of the garden.

The inclusion of mindfulness practices into elementary schools is essential to provide students with accessible tools on how to navigate the challenges that arise in everyday lives. Educators forums where teachers can learn about mindfulness and how to engage students in this practice should be created. Having teachers be able to lead these activities will mitigate outside personnel from coming in. Therefore mindfulness practices can always be accessible from teachers within the community. On July 25, 2019 the California Department of Education introduced the implementation of State Training Days, which allow center-based child care contractors to utilize state funding to schedule up to two professional development days. Principal Arciniega has utilized these professional development days to introduce mindfulness to

her educators. Other school administrators should follow suit and use these professional development training days to introduce and educate faculty on mindfulness- both the healing effects of this practice and how to facilitate mindfulness activities on their own. Since the state funding is already present for these days, schools can hire mindfulness educators to help train school teachers on how to implement mindfulness into their classrooms. Alternatively - since school funding is scarce- schools can connect with [Mindful Schools](#) which is under the organization InsightLA, which connects with community outreach programs to partner with other nonprofits and schools to provide free online mindfulness training to vulnerable populations, teachers, caregivers, and first responders. Free and attainable mindfulness education exists and is a great and affordable way to help all schools have access to mindfulness training that they can bring to their classrooms. While school days are incredibly busy, teachers can take 5 minutes during recess and/or as students arrive to practice micro- mindfulness moments.

Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S

Institute for mindfulness-based approaches:: What's



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