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The Outdoor Classroom: Integrating the Outdoors into the Classroom

Wendy Ramirez

Liberal Studies Department

College of Education

California State University Monterey Bay

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Abstract

This Capstone Project explores the potential benefits of outdoor learning in enhancing student engagement and hopefully reducing the negative effects of excessive screen time. The researcher obtained the perspectives of teachers, a principal, and a director of an outdoor education organization from “Golden Eagle Elementary” to gain a comprehensive understanding of the issue. The study's findings, combined with an analysis of relevant research literature, underscore the significance of outdoor learning in preventing developmental delays and fostering a healthy learning environment. To advocate for change and raise awareness, the researcher utilized their findings to engage various stakeholders, emphasizing the positive outcomes of outdoor learning. Through the dissemination of these results, this project aims to inform and inspire further research, ultimately contributing to the ongoing discussion and improvement of educational practices for young learners.

The Outdoor Classroom: Integrating the Outdoors into the Classroom

Growing up in a low-income urban neighborhood has shown me firsthand how important it is for children to have access to natural outdoor areas for their overall physical, emotional, and social growth. My family and I lived in downtown Soledad in an urban residential area where stores, schools, and parks were blocks away, outside of walking distance. From my childhood, I used to live in a concrete apartment complex with no grass or trees. The good thing about growing up in an apartment complex is the neighborhood kids, especially when they are the same age and just as creative as me at the time. Even though we did not have grass to cover our falls or give us a soft landing, and we could not afford toys or equipment to play with, we used our creativity and imagination to pass the time. We had to rely on our imaginative play and creativity to invent games and activities like play-pretend waiters and cashiers, where we used rocks as currency. We also played games such as Tag, Cops-and-Robbers, and Hide and Seek because they did not involve the use of toys that we could not afford, and we did not have any play structures or any safe places to play. Despite having limited playing areas we used our imagination to make the most of what we had. This experience has taught me the importance of advocating for and creating more opportunities for children to connect with nature, especially in urban environments with limited access.

Growing up in the early 2000s, before technology became as pervasive as it is today, I was raised by a single mother who worked tirelessly to provide for me. As a result, I often walked to school alone, traversing the four-block journey uptown that now holds cherished memories. Despite living in a neighborhood with limited exposure to nature, I vividly recall being captivated by the diverse plants and trees I encountered on my daily route. I remember seeing the leaves on trees change colors every season and the many different flowers blooming every season. I also remember the grass looking greener on sunny days and how puddles form on the pavement. Having to see these sights created a fondness of nature as a young child which was also influenced by my elementary school's garden. I vividly remember that every year since kindergarten, the students were able to visit the garden with their teacher and the guardian of the garden who was a third-grade teacher, and showed us around the lime, lemon, orange, and grapefruit trees. We got to taste the oranges and grapefruits and were taught how the fruits came from the flower, which I found very cool as a kid. I also remember having lessons on the

butterfly cycle on green tables in the garden as a class and reading circles on the grass with our teacher reading about a bird's role in the ecosystem. These experiences were exciting to me because I got to spend time with my friends and we did not feel restricted from playing or socializing in indoor classrooms with strict rules such as being seated at all times, no talking, and limited space.

From what I remember class time was not as exciting as being on the playground or being in the cafeteria. Many of my teachers did not seem committed to creating a positive learning environment for students and their learning development and seemed to only care about the work being completed and following classroom rules. Although I appreciated being in class with my friends and valued the opportunities for collaboration, our learning environment was somewhat restrictive. We had to adhere to classroom rules that limited our ability to move around or engage in conversations that weren't strictly related to the lesson. This created a challenging dynamic, as we often found ourselves wanting to explore ideas more freely and interact with our peers without the constraints imposed by these rules. Ultimately, while there were positive aspects to our classroom experience, the balance between structure and flexibility could have been improved to better support our natural curiosity and desire to learn.

I specifically had a class where we had to raise our hands and ask for permission to get up for any reason. This experience played a significant role in shaping my educational philosophy. I understand that good classroom management and completed work are essential, but I also think it's equally important to create an environment that encourages and supports young, curious minds. In my view, overly authoritarian teaching styles, such as imposing strict rules with seating charts and limiting classroom discussion between peers, can inadvertently suppress students' natural curiosity and creativity. Therefore, I advocate for a balanced approach that maintains structure while encouraging exploration and collaboration, allowing students' enthusiasm for learning to flourish thus, engagement in the learning process may suffer. As a student, I remember struggling to focus in class while sitting at my desk for hours just daydreaming about being outside and playing in the swing sets. Looking back, it is safe to say that a young curious mind should be exposed to sensory experiences that engage different learning styles and ditch the textbooks by integrating learning outdoors into the curriculum and promoting access to natural outdoor spaces. Keeping a young mind engaged and enthusiastic about learning is a skill teachers

must continue to develop, which is why teachers are encouraged to use alternative teaching practices that offer hands-on learning and in-person experiences to engage students.

As I have gotten older, I realized there are still children like me growing up in these types of environments where they have views of concrete buildings and little greenery. There are still children out there with no toys, but an active imagination who are deprived of fully expressing their creativity, personalities, and feelings without being suppressed by the lack of toys, equipment, or an appropriate environment for a kid to be a kid. Upon researching the benefits of integrating the outdoors into education and learning, it has become evident that schools should strive to create environments that foster inspiration, excitement, and a readiness to learn among their students. By embracing the numerous advantages of outdoor education, educators can provide experiences that stimulate children's natural curiosity and passion for knowledge, ultimately contributing to their overall success and well-being by creating an environment where children are boundless and free from the restriction of classroom rules and being stuck behind the walls of the classroom. Teachers should prioritize taking students outdoors not only for the benefit of fresh air but also to allow them to fully engage with and learn from nature. Immersing students in hands-on learning experiences in the natural world can help improve focus, spark curiosity, and engage all their senses. To support this approach, schools should be dedicated to providing enjoyable, well-designed playgrounds and gardens that enable children to interact with nature and enhance their overall learning experience. Teachers can also benefit from these gardens by integrating this new learning environment into their teaching because new and unique lessons are the most memorable to young students, especially the ones who rarely get to experience the outdoors. Having something to look forward to at school will make students want to learn and engage in these new subjects at school. Once schools can acknowledge how valuable the outdoors can be to learning, students will engage more in school and become happier in school. As a student who had the opportunity and privilege to experience outdoor learning, I believe this alternative teaching style should be adopted in all schools to improve student learning. In the following section, I will discuss the issue in more detail, and explore the solutions currently suggested by researchers in the field.

Literature Synthesis

The rapid evolution of technology over the past decade has not only captured our attention but also created a deep fascination, especially among the younger generation. Children nowadays are engaging with technology for enjoyment rather than spending time outdoors. According to the Kaiser Family Foundation (2010), kids ages 8-18 now spend, on average, a whopping 7.5 hours in front of a screen for entertainment each day, 4.5 of which are spent watching TV. (p11) Phones, tablets, and computers have occupied children's minds, affecting their attention spans and imagination. Recent studies by Takahashi, MMSc; Obara, PhD; Ishikuro, PhD; et al., found the more electronics children were given, the more likely they were to exhibit developmental delays in children aged 1 year were associated with communication and problem-solving at ages 2 and 4 years. It is important to know that these delays can be reversed and prevented by changing how we interact and engage with young children so their socio-emotional and physical development can ultimately contribute to their student success and learning development. A method that can promote their motor skills and social and problem-solving skills in a natural way of play is by fostering student learning outdoors which offers a variety of sensory experiences that can engage different learning styles. This approach will encourage students to engage with the natural environment while also learning and cultivating the skills to succeed academically and cognitively. Outdoor education provides numerous advantages, and embracing this approach can significantly benefit students. By integrating the outdoors into children's learning environments, we can enrich their educational experiences, personal development, and overall success, ultimately contributing to their cognitive and academic growth.

Effects of Screen Time

Parenting has never been easy and in today's technology-driven era, it's easy to rely on devices like iPads and tablets for children's entertainment. However, the widespread adoption of smartphones and the rise of social media has introduced a new wrinkle to the challenges of parenthood. A majority of parents in the United States (66%) – who include those who have at least one child under the age of 18, but who may also have an adult child or children – say that parenting is harder today than it was 20 years ago, with many in this group citing technology as a

reason why (Auxier, Anderson, Perrin, Turner, 2020). As expressed, kids ages 8-18 now spend, on average, a whopping 7.5 hours in front of a screen for entertainment each day, 4.5 of which are spent watching TV. (Kaiser Family Foundation, pg 11, 2010). In addition, the 2020 pandemic also contributed to screen time for this vulnerable age group. Preschoolers were the most affected by the restrictions during the pandemic, particularly for physical activity and recreational screen time. (Okely, A. D., 2021). Parents with young children themselves make clear they are anxious about the effects of screen time. Fully 71% of parents of a child under the age of 12 say they are at least somewhat concerned their child might ever spend too much time in front of screens. (Auxier, Anderson, Perrin, Turner, 2020). Excessive screen time can negatively impact children's attention spans and imagination, affecting their engagement in learning and that is why this study serves as an important reminder for parents and educators to strike a healthy balance between screen time and real-world experiences to promote healthy development in young children.

Developmental Delays

New research from Japan asked parents of 8,000 babies to log digital usage and found that too much help from screens could have detrimental effects. In this study, Takahashi, Obara, Ishikuro, et al., (2023) used the Ages & Stages Questionnaires, Third Edition (ASQ-3) to evaluate developmental delays in children. The ASQ-3 assesses child development from ages 1 to 66 months. Parents of 2 and 4-year-old children responded to questions in the Japanese version of the ASQ-3, communication (babbling, vocalizing, and understanding), gross motor (arm, body, and leg movement), fine motor (hand and finger movement), problem-solving (learning and playing with toys), and personal and social skills (solitary social play and playing with toys and other children). Takahashi, Obara, Ishikuro, et al., (2023) confirmed an association between screen time at age 1 year and developmental delay of social and communication skills at age 2 years. In addition, Takahashi, Obara, Ishikuro, et al., (2023) observed an association between screen time at age 1 year and a higher risk of developmental delay at age 2 years in fine motor and problem-solving skills. These developmental delays can be crucial to these children's developmental skills as they become students. In particular, more than 4 hours of screen time per day was associated with developmental delays in communication and problem-solving across ages 2 and 4 years. Regarding the risk of developmental delay at age 4 years, associations were found in the communication and problem-solving domains. These associations were consistently

observed in the communication and problem-solving domains for children aged 2 and 4 years. Therefore it is essential to consider how screen time affects children's learning development.

Why it is an opportunity

Child psychologists have confirmed that these developmental delays can be reversed (Limon-Rocha, 2023.) Therefore it is important to foster pre-academic skills such as cognitive, linguistic, and motor skills. With that being said, educators and parents seriously consider the outdoors as a beneficial learning environment due to the solid foundation it provides for children's academic growth (Kiviranta et al., 2024; Yildirim & Akamca, 2017). Greener school environments (such as the presence of natural features in the playground) have been linked with better motor skills which resulted in children engaging in functional play consisting of gross-motor activities and basic skills like running, jumping, etc. (Fjørtoft, 2004), psychological restoration, and rates of physical activity. Physical activity played in a natural environment improved all the motor abilities tested, except for flexibility (Fjørtoft, 2004.) Focusing on children's behavioral experiences, a direct association was ascertained between visual, auditory, tactile, and olfactory sensations and children's behavioral experiences. In comparison, it was found that olfactory sensation had the greatest influence, and tactile sensation had the least on children's behavioral experiences (Fjørtoft, 2004.) In terms of activity programs, children generally show more interest in and a preference for personal or team quality-development programs that are hands-on and challenging, such as rock climbing and canoeing. To some extent, uneven surfaces, lower physical sensations, and landscape tactile sensations can stimulate children's sense of adventure and challenge, and enhance their experience satisfaction (Fjørtoft, 2004.) Therefore, outdoor learning is associated with more advanced motor skills, higher rates of physical activity, positive play behaviors, a range of observed developmental outcomes, and states of good mental health in children.

Cognitive Benefits

Exposure to outdoor surrounding greenness was associated with a beneficial impact on cognitive development in schoolchildren. Dadvand, Nieuwenhuijsen, Esnaola, and Sunyer, (2015.) found an improvement in cognitive development associated with surrounding greenness, particularly with greenness at schools. Evidence from Spain found that greater access to public spaces with both natural and aquatic elements, such as ponds, was positively associated with a

range of behavioral indicators (Dadvand, P., et al., 2015) and with cognitive development in school children (Amoly, E., et al., 2014). The results of the operational tests of the structural equation model show that visual, auditory, tactile, and olfactory sensations were all significantly correlated with children's general behavioral experience in the urban forest park, indicating that visual, auditory, tactile, and olfactory sensations all influence children's overall sense of experience in green environments such as parks (Xu, J., et al. 2022). This finding is consistent with existing research by Yaswinda (2016), which suggests that children's direct and authentic experiences require multiple senses to deepen their perception and understanding of what they see, hear, smell, and touch. All of these studies reveal a potential link between multi-sensory perception, children's behavioral experiences, and landscape preferences for learning, which provides a new way of thinking about how to create appropriate activity areas for children.

Socio-Emotional Benefits

It's important to be informed and aware of alternative teaching styles and methods that promote emotional benefits for unique students who will engage differently to your teaching approach considering every student's level of learning and understanding. In addition, nature's impact on physiological outcomes among students and adults concluded that exposure to nature had a harmonizing effect on physiological stress reactions across body systems (Bates et al. 2018.) Research indicates that using the environment as an integrating context for K-12 education leads to increased performance on standardized measures of academic achievement. However, fostering emotional intelligence and social awareness in the classroom is also crucial, as noted by Puhakka et al. (2019). Spending time in nature has been shown to reduce stress, anxiety, and depression while improving mood and self-esteem. In addition, students at schools with renovated green schoolyards have demonstrated positive social behaviors, lower stress levels, and fewer problem behaviors (Chawla et al., 2014). Interviews were conducted by Chawla, L., K. Keena, I. Pevec, and E. Stanley (2014.) and ethnographic observations have shown that spending time in nature reduces stress, anxiety, and depression, and improves mood and self-esteem. The presence of natural elements may help and contribute to social-emotional development among primary school children, with studies suggesting that replacing built surfaces with natural landscapes around schools can lead to decreased rates of antisocial behavior, anxiety, and depression (Sajady et al. 2020) Parents reported (Rymanowicz,

Hetherington, and Larm [2020](#)) that their children's outdoor programs inspired them to make more ecological choices and increase their number of outdoor activities. According to two studies, it was suggested that the community experienced benefits as a result of children being happy outdoors. (Rymanowicz, Hetherington, & Larm [2020](#); Waite [2011](#)). Therefore, outdoor learning offers positive youth development outcomes by promoting physical activity and prosocial behavior, fostering social-emotional behaviors, and boosting cognitive brain activity.

What Has and/or Should Be Done?

Many primary school teachers are aware of the potential of using natural environments as integrating contexts for various school subjects (Henriksson, [2018](#)). It is an important role for the teacher to facilitate the learning when it comes to learning outdoors. Enabling children to have access to nature, it is considered that the teacher must possess a supportive attitude and a willingness towards outdoor activities (Henriksson, [2018](#)). Teachers described a lack of resources (Waite, [2011](#)), necessary tools (McClintic and Petty [2015](#)), or storage for tools (Tuuling, Õun, and Ugaste [2019](#)). Even though outdoor learning requires minimal material, Nedovic and Morrissey ([2013](#)) reported that children themselves preferred natural materials over non-natural elements, such as commercial toys, in their daycare playgrounds. All a student needs is a supportive teacher who is committed to this style of teaching. A competent teacher is capable of awakening children's love and excitement of nature (Dowdell, Gray, and Malone [2011](#)), even with children who usually appear less interested in learning (Vartiainen et al. [2018](#)). This sometimes leads to teachers not exploiting the full potential and benefits of the outdoor environment (McClintic and Petty [2015](#)). Teachers attributed this to factors including lack of inclination (McClintic and Petty [2015](#); Waite 2011); preparation, planning, and a sense that going outside into nature took too much time (Tuuling, Õun, and Ugaste [2019](#)). This is why teachers should be open to trying new approaches to teaching and integrating the outdoors into their teaching with alternative practices that offer hands-on learning and in-person experiences to engage students.

There should be more information about outdoor learning and the benefits of outdoor learning as a whole. Misconceptions about outdoor learning stop educators and parents from considering this option with safety concerns which is understandable. Firstly, it is important to know what outdoor learning exactly is, outdoor learning is only a tool for teaching. It takes

curriculum objectives and delivers them in the outdoor environment. (Alfresco Learning, Webb, 2024) “Outdoor Education’ strongly depends on the respective teachers' motivation and beliefs, their pedagogical concepts and ideas, and certain financial support from headmasters/headmistresses and school authorities. (Becker et al. 2017) Secondly, educators and school leaders need to be more aware of how outdoor learning benefits students while still being on school grounds, budget-friendly, and safe. If parents, educators, and school principals work more closely together and educate each other with a strong focus on what is needed, positive changes in school practice can hopefully be realized for students’ benefit because alternative style teaching like outdoor learning is no different than regular indoor learning. (Alfresco Learning, Webb, 2024) All you need is your existing teaching experience and training on how to be able to adapt your teaching practice to the outdoors. You just need to show a different way to apply it. (Alfresco Learning, Webb, 2024) With the appropriate knowledge of this teaching tool, teachers can create lessons that require little to no materials and develop the skill of adapting their existing teaching skills to a new style that can create a positive learning experience for their students.

With a more specific focus on education within the school context, regular compulsory school-based and curriculum-based outdoor education programs seem to positively affect students’ physical activity levels, mental health status, social competencies and relations, and academic achievement (Becker et al, 2017.) What all of these schools had in common with their teaching, is that the main study topics during a lesson are adventurous with activities that remain residential, and other study topics are strongly linked to core curriculum subjects. A well-structured and curriculum-integrated outdoor education program could therefore offer great opportunities in helping to achieve the above-mentioned objectives (Rickinson et al. 2018). For example, set a wide focus on outdoor learning by evaluating the impact of (i) fieldwork and visits; (ii) outdoor adventure activities; and (iii) school grounds and community projects. The authors summarized diverse benefits for each category, e.g., an increase in PA and academic achievement, development of social skills, and a favorable attitude towards the environment.

There have been many resolutions done across the world to fix this issue. In the city of San Francisco, the issue of improving schoolyards has been brought up. The people of San Francisco proposed to renovate schoolyards with greenery and attractive buildings to increase

physical activity as well as improve student attitudes towards their schools which increase learning performance and activity. The San Francisco Green Schoolyard Alliance has stated that many school sites--with paved yards, fences, and block-like buildings--are unwelcoming and uninteresting play areas (SFGSA, 2005.) School gardens provide students the opportunity for hands-on inquiry-based learning leading to environmental stewardship, providing the skills and knowledge of the environment. School gardens can enhance student learning in math, science, social studies, reading, writing, and nutrition (SFGSA, 2005.) Research shows that employing the environment as an integrating context for learning in K-12 education increases performance on standardized measures of academic achievement. Many city departments and community groups are interested in developing and maintaining green space, including gardens, in San Francisco. San Francisco voters approved Proposition A; School Bond, which allocated \$2.0 million of bond proceeds to the greening of schoolyards at certain District schools. The Commission on the Environment supports the efforts of the San Francisco Green Schoolyard Alliance and urges the mayor's office to work with SFGSA and the San Francisco Unified School District to create a garden in every school. (SFGSA, 2005.)

Conclusion

In conclusion, the exponential growth of technology has profoundly impacted the younger generation's attention and fascination, often leading to excessive screen time and a decline in outdoor engagement. As expressed, children spend a significant portion of their day in front of screens, which can affect their communication, problem-solving, and socio-emotional development. To counter these detrimental effects, modifying our approach and fostering learning experiences in natural outdoor settings is crucial. By doing so, children can cultivate essential motor, social, and problem-solving skills while engaging their senses and adapting to diverse learning styles. Ultimately, integrating outdoor education into children's learning environments can not only enrich their academic experiences but also contribute positively to their personal development, cognitive growth, and overall success. Embracing this change can pave the way for a well-rounded and holistic educational journey that benefits children in the long run.

Method

This Capstone Project focused on examining the benefits of outdoor learning for children's cognitive, social-emotional, and physical development. The researcher specifically analyzed teachers' perspectives at Green Academy, exploring how outdoor education positively impacted student learning and how to improve it. With the increasing presence of technology, children were spending more time indoors, potentially hindering their attention spans, creativity, and school engagement. Based on an analysis of the data, the researcher aimed to create a plan for integrating outdoor learning into the curriculum. This plan served as an inspiration and resource for key stakeholders, ultimately promoting access to natural outdoor spaces for positive youth development outcomes. By embracing outdoor learning, students could develop a deeper appreciation for the environment while fostering their academic and personal growth. In conclusion, adopting outdoor education has numerous benefits for students, strengthening their connection to the natural world and enhancing their overall success.

Context

In summary, the charts presented in this report provide an overview of teacher assignments and credentials at Gold Eagle Elementary School, the Soledad Unified School District, and the state level. The data highlights the number of fully credentialed teachers, intern credential holders, teachers without credentials or assignments, and credentialed teachers assigned out-of-field under ESSA. Additionally, the charts report on Gold Eagle Elementary School's information, including the number of teachers on permits and waivers, assignments, vacant positions, credentialed teachers authorized on a permit or waiver, local assignment options, the percentage of misassignments for English Learners, and the percentage of teachers with no credential, permit, or authorization to teach. These insights offer valuable information on the current state of teacher assignments and credentials, helping administrators and stakeholders to better understand the needs and challenges of the educational system, and enabling them to make informed decisions to support the success of students and teachers alike.

Participants and Participant Selection

I invited one female kindergarten teacher, Teacher B, and one male instructor from the Green Academy. This group of prospective participants is being invited to participate because of their relevant experience or expertise. I will also invite a professor who was a teacher

in their past careers and is now a college professor who instructs in Elementary education.

Researcher

As a child in a low-income urban area in Soledad, few parts of my neighborhood were safe or fun to play in. The only nature I got to see or be around was on my way to school (trees and grass on the front lawns of the homes) and the school itself where my elementary school has a garden and trees and grass fields in the schoolyard. Every year since kindergarten, students were able to visit the garden and have reading circles, and lessons in the garden. I remember these days being special to me because I saw new sights and had new experiences. I am similar to these participants because they have an interest in using the outdoors as a tool for teaching and have a passion for the quality of education of students. I am aware that not all participants are going to have the same ideas and passions as me due to the fact that they have different experiences with outdoor learning activities and teaching strategies. As I move forward with this research project, I remain open-minded to receive feedback on an issue I feel passionate about and am committed to documenting the authentic feelings, thoughts, and data presented by the participants and that some survey participants may have differing backgrounds and experiences regarding access to nature. Their circumstances and current home environments may lead to contrasting viewpoints on the topic. I will approach the data collection process with neutrality and without bias. Ultimately, I hope to raise awareness of an issue and establish a potential solution that ensures all students have equal access to nature and can establish outdoor learning environments to improve student engagement and enhance learning development for all students.

Semi-Structured Interview and Survey Questions

For this project, instructors were interviewed with unique questions based on their expertise and the students completed surveys. The questions are shared below.

Horizon Instructor Interview:

1. What made you want to be a part of this program?
2. What is the difference between learning outdoors and Mearth?
3. Based on what you've seen, how has outdoor learning helped students?
4. What challenges have you seen in students before entering this program?

5. When it comes to learning outdoors, what sort of teaching methods do instructors use?
6. How does an instructor make sure students benefit from being outdoors?
7. What kinds of assessments do you use to track student learning?

Kindergarten Teacher Interview:

Do you have any experience in accommodating lessons outdoors?

Were there any set of standards when creating this lesson?

Did you prepare the students in any particular way for this lesson?

What was the difference between preparing the lesson plan and instructing the lesson?

Were there any challenges with instructing the lesson?

Are there any ways to improve the lesson and instruct it?

Professor 1 Interview

How can teachers successfully instruct indoors?

What are some things to consider when teaching outdoors?

Procedure¹

When it was not possible to interview participants in person, they were invited to a phone call or a video call interview and even sent an email with their response. Video-call and phone calls interviews were audio-recorded (with participant consent) and took place in a suitable location. A semi-structured interview format was used for face-to-face interviews, allowing for follow-up questions in response to unclear, interesting, or unexpected responses. All interviews were scheduled at the convenience of the interviewees and took approximately 20 minutes to complete.

Data Analysis

Transcribed interviews were coded and analyzed for emergent themes.

¹ <http://my.ilstu.edu/~jhkahn/>

Results

For this Capstone Project, two instructors were interviewed to see what they think could be done to improve outdoor learning. This is important because outdoor learning can improve students' academic and socio-emotional development yet it is not as utilized because teachers and parents are not aware or well-informed of the benefits of outdoor learning. Therefore the factor of reach becomes an obstacle for teachers and parents because they are not well-informed of the benefits of outdoor learning and how it works. Based on an analysis of the data and the relevant research literature three themes emerged (see Table 1). Evidence-based decision-making requires evaluating each potential Action Option by the following criteria: Sustainability; Reach; and Time. The purpose of this research was to prove how outdoor learning can be a substantial teaching tool, sustainability becoming an important criterion because all educators should be aware of the teaching methods and styles to initiate outdoor learning. Educators being well-informed and knowledgeable of the benefits of outdoor learning is important because teachers should be aware of their options for teaching methods to make sure all students are benefiting academically and socio-emotionally therefore reach is an important criterion. Teachers claim that teaching outdoors requires a lot of time and work therefore time becomes an obstacle for teachers and students to utilize outdoor teaching methods and it has become another important criterion. Based on the evaluation of each Action Option an action will be recommended and justified.

Table 1

Evaluation of Action Options

	Sustainability	Time	Reach
Integrate the outdoors	Low	Medium	High
Look into resources	High	Low	High
Spread awareness within the community	High	Low	High

What should I do?

A recurrent theme emerged from both other researchers' work and conversations with teachers and educators: many educators consider outdoor lessons stressful and don't appreciate the benefits of outdoor learning. One educator said, "For me, it's stressful, honestly, to be out, especially with that young of an age group. But I also know that just reinforcing safety, being on task, and making sure the kids are aware of their surroundings" (L. Bernabe, personal communication, April 23, 2024). Some educators noted that past interest in outdoor education dwindled due to the amount of work required: "There have been teachers in the past who took an interest in the garden, but it's a lot of work" (L. Bernabe, personal communication, April 23, 2024). Others pointed out the lack of institutional support for such initiatives: "There is a gardening committee, but it's not a very active committee" (L. Bernabe, personal communication, April 23, 2024). Many educators feel overwhelmed by competing priorities and struggle to find the time and energy to teach outdoors: "Another reason why teachers are like, 'Oh, like I don't invest in the time' [...] we're so overwhelmed with other stuff. Like we just don't have the time or the energy out there. But, I mean, we're trying" (L. Bernabe, personal communication, April 23, 2024).

In promoting outdoor learning, the teacher's role in facilitating learning experiences is crucial. Children need supportive teachers who are dedicated to teaching in outdoor environments (Henriksson, 2018). Even less interested children can develop a love and excitement for nature with the guidance of a competent teacher (Dowdell, Gray, and Malone 2011; Vartiainen et al. 2018). However, teachers may not fully exploit the outdoor environment's potential, citing a lack of inclination, planning, and time constraints (McClintic and Petty 2015; Tuuling, Õun, and Ugaste 2019; Waite 2011). Therefore teachers should be open to integrating alternative practices that offer hands-on learning and in-person experiences to engage students and capitalize on the benefits of outdoor education such as allowing students to explore the outdoor environment with a clear purpose fosters a sense of adventure while ensuring meaningful learning experiences. As Teacher B emphasized, "Giving them agency is really important... Each time we go to the garden, as I said, the task is very specific. So, I think definitely the agency, like giving them the okay to go explore" (personal communication, April 23, 2024). Gentle reminders to stay on topic help students remain focused and learn something valuable.

To further enhance the effectiveness of outdoor education, Teacher B recommends, "I feel like [making the lesson] more purposeful in that sense. Like, it's cool that we're exploring outside. But at the end of the day, I want you to be able to say those animals in Spanish [and] be able to communicate your findings. I think having more focus on the vocabulary would be great" (personal communication, April 23, 2024). By thoughtfully planning and integrating specific learning objectives, teachers can ensure that students gain meaningful knowledge and skills from their outdoor learning experiences.

How can I do that?

Increased collaboration among parents, educators, and school principals is crucial for promoting positive changes in school practices that benefit students. By raising awareness of outdoor education's advantages and feasibility, stakeholders can work together to support this valuable learning approach. As highlighted in "Alfresco Learning" (Webb, 2024), integrating alternative teaching styles like outdoor learning can be as simple as regular indoor teaching. A well-structured, curriculum-integrated outdoor education program can be easily implemented and offers significant opportunities to achieve various educational objectives (Rickinson et al., 2018). Educators can maximize the potential benefits by focusing on simple, yet effective outdoor learning components such as fieldwork, visits, outdoor adventure activities, and school grounds or community projects. As advised by an educator, having a clear purpose for outdoor learning experiences is essential: "Always have a clear purpose for when we go to the garden. So for instance, in that worksheet that Jose brought home about the bug search, we had already been studying different insects. So the intention was, let's go see and find what we can find in our garden to kind of wrap up and close our unit of insects" (L. Bernabe, personal communication, April 23, 2024).

The successful implementation of "Outdoor Education" depends on teachers' motivation, beliefs, pedagogical concepts, and financial support from school authorities (Becker et al., 2017). By addressing these factors and fostering collaboration among stakeholders, schools can create effective and accessible outdoor learning programs that enrich students' educational experiences and promote positive outcomes. A teacher shared how they easily integrated outdoor learning into their teaching practice: "So in that sense, I try to get them outside as much as I can, focusing on gardening, especially for this time of year. And we're also doing our plants and animals unit

for science. So it kind of just all ties in" (L. Bernabe, personal communication, April 23, 2024). "In terms of science, there was an earlier unit of El Clima, of the weather and, we had studied the different kinds of clouds, so we did a record tracking of what clouds we observed outside. So, We just have our little notebooks, lay down on the grass, and talk about what the clouds look like and then, in terms of just being outside, making them a little more aware, like every morning. In class, I ask them, well, what's the weather like and so vocabulary as well as we're walking to the class. I tell them, okay, start observing. What can, what do you notice? What are you doing?" (L. Bernabe, personal communication, April 23, 2024). This demonstrates how outdoor learning can be effortlessly incorporated into existing curricula and adapted to different subjects.

While some teachers have reported a lack of resources, tools, or storage for tools in outdoor learning environments (Waite, 2011; McClintic & Petty, 2015; Tuuling, Öun, & Ugaste, 2019), it's interesting to note that children often prefer natural materials over commercial toys in daycare playgrounds (Nedovic & Morrissey, 2013). This indicates that even with minimal resources, educators can create engaging outdoor learning experiences for their students. As an educator shared, setting up a simple outdoor lesson can be as easy as providing basic tools and encouraging exploration: "So, in terms of the bug search, I gave them a magnifying glass. Everyone had their clipboard, and I told them, like, we're all searching, if you find something, make sure to tell a friend. So having given them, like, releasing some of that control, telling them, okay, go find it" (L. Bernabe, personal communication, April 23, 2024). With proper training and support, educators can adapt to outdoor environments and implement outdoor learning successfully (Alfresco Learning, Webb, 2024). Providing educators with accurate information on the benefits and practices of outdoor learning will ensure that students have access to this effective, enjoyable, and accessible learning approach.

How do I even do that?

It's important to be informed and aware of alternative teaching styles and methods, especially with unique students who will engage differently to your teaching approach considering every student's level of learning and understanding. For educators who would like to find new ways to keep their students engaged and enhance their learning environment exploring alternative resources is always a start. As expressed by Teacher B, "I do collaborate right now with Blue Zones, which is a nonprofit organization to help establish those learning environments

outside. And we actually got a 500 grant from them, it's just a matter of deciding how to use it.” (Teacher B, personal communication, April 23, 2024). As expressed by some educators, there may be concerns about the financial implications of implementing outdoor learning. It is essential to remember the significance of investing in our student's education, and various resources are available to help educators create engaging outdoor lessons.

Many city departments and community groups in San Francisco are committed to developing and maintaining green spaces, including gardens. San Francisco's Proposition A, the School Bond, allocated \$2.0 million for the greening of schoolyards at select District schools, reflecting a strong public interest in supporting outdoor learning environments. The Commission on the Environment actively collaborates with the San Francisco Green Schoolyard Alliance (SFGSA) and encourages the mayor's office to cooperate with SFGSA and the San Francisco Unified School District to establish a garden in every school (SFGSA, 2005). This local emphasis on green spaces aligns with the wide range of resources available to educators seeking to develop engaging outdoor lessons.

While some educators may have concerns regarding the financial aspects of implementing outdoor learning, it is crucial to recognize the importance of investing in students' education. Numerous resources are available to assist educators in developing engaging outdoor lessons. Online platforms offer lessons and training, while local communities often provide programs, school collaborations, and after-school activities for students of all ages. These resources not only advocate for outdoor education but also offer lesson plans, training, and support for educators looking to integrate outdoor elements into their teaching practices and learning environments. Teachers should take advantage of the various organizations and funding opportunities, such as those supported by Proposition A and SFGSA, that assist schools in obtaining the essential materials and tools for outdoor education. By actively pursuing these opportunities, educators can secure valuable resources to create enriching and engaging learning experiences that contribute to students' overall development and align with the city's commitment to promoting green spaces and outdoor learning environments. By actively pursuing these opportunities, educators can secure valuable resources to create enriching and engaging learning experiences that contribute to students' overall development. As educators continue to

embrace alternative teaching methods, the potential for increased student engagement and improved learning outcomes will only continue to grow.

Conclusion

In conclusion, an educator's dedication to creating enriching and engaging outdoor lessons and embracing diverse teaching methods to cater to the unique needs and learning styles of students cannot be overstated. The integration of outdoor learning into educational practices holds immense potential for enhancing student engagement, fostering a love for nature, and improving overall learning outcomes. Collaboration between educators, parents, and school administrators is crucial in promoting positive changes and raising awareness about the benefits and feasibility of outdoor education. By leveraging resources, grants, and partnerships with organizations like Blue Zones, educators can secure the support and tools necessary to successfully implement outdoor learning programs. Furthermore, the wealth of resources available online and within local communities demonstrates that creating enriching outdoor lessons is more accessible than ever before. As educators continue to explore alternative teaching methods and capitalize on the benefits of outdoor education, the opportunities for student growth and development will only continue to expand, ensuring a brighter and more engaging future for learners of all ages.

Recommendation

Of all the three action options given above, I recommend that teachers should just do it and give outdoor learning a try regardless of having experience. Based on the literature and the data collected in the interviewing process, I am confident that this is the best solution for teachers to integrate the outdoors with their learning environments. I recommend teachers who are concerned about the hard work and preparation needed to teach a class of young students to prepare students about the outdoors by teaching them about the four seasons, the effects and purpose of the changing weather, reading books about nature to children, and teach them safety precautions for the outdoors and the importance of respecting wildlife. With appropriate preparation and determination, young students will adhere to the instructions especially when it comes from an enthusiastic and passionate teacher. This section will discuss the concessions, limitations, and possible negative outcomes that this action option may entail.

Concessions

While I do recommend that teachers just initiate and give outdoor teaching a try, the other action options also have considerable strengths. For example, looking for resources and staying informed of the benefits of alternative teaching strategies even if they are out of our comfort zone for the interests of our students' learning development and creating positive learning experiences for students is important for educators who are open to expanding their teaching experience. As stated by Henriksson (2018) to enable children to have access to nature, it is considered that the teacher must possess a supportive attitude and a willingness towards outdoor activities. Because it is important to try alternative teaching styles and methods with unique students who learn and understand material differently based on your teaching approach, teachers should incorporate outdoor learning into school curricula due to the advantageous and numerous benefits it offers in terms of children's overall development and academic success. I also believe that a competent teacher is capable of awakening children's love and excitement of nature which is why teachers should be aware of the full potential of using the outdoor environment as a beneficial tool for teaching.

Limitations

While choosing to just initiate integrating the outdoors into your lessons as my recommended action option seems to be the best choice, there are still limitations to recognize as well. For example, a student's behavior is pretty unpredictable therefore establishing clear expectations and guidelines for outdoor learning environments is crucial because it is no question that young students are more likely to break rules or engage in disruptive behaviors when outside the traditional classroom setting. Another limitation can be traced back to the teacher's ability to adapt because it is a crucial skill for teachers that is highly required for outdoor learning when considering accommodating a variety of external factors such as weather conditions, access to resources, and other unforeseen disruptions. Developing contingency plans and maintaining flexibility in teaching approaches are essential skills that educators should continually refine. These skills not only contribute to effective classroom management but also play a vital role in addressing the unique challenges presented by outdoor learning environments.

Potential negative outcomes

There are possible negative outcomes to consider in this action option. For example, safety hazards in the learning environment come from the negligence of upkeeping the outdoor

learning environment. When it comes to having the space for an outdoor learning environment, it is important to keep that environment safe and well taken care of for young students to explore. As stated by Teacher B, it is stressful to be out with several young children so safety will always be the number one concern and priority when it comes to outdoor learning causing teachers to avoid teaching outdoors.

Conclusion

Despite these potential limitations, I still recommend teachers try outdoor learning as the best option to support integrating the outdoors with their educational environment for students. Additionally, I believe all educators should be open to learning new strategies because it will enable adapting to the evolving needs of their students which includes outdoor learning. It is important to remember that the benefits of outdoor learning, such as enhanced student engagement, improved academic outcomes, and increased appreciation for the natural environment, far outweigh the challenges of not having enough skills or experience. Teaching is a skill that evolves through continuous learning and refinement, often involving a process of trial and error. As educators embrace this iterative approach, they can develop the necessary abilities to address challenges proactively, maintain high-quality learning experiences, and create engaging outdoor education opportunities for their students. By adopting a growth mindset and being open to experimentation, teachers can continually enhance their instructional practices, fostering enriching and meaningful learning environments that cater to the unique needs of their students.

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