

2024

Outdoor Education Advisory Working Group Report to the Nevada State Legislature





A Note From The Chair

I want to thank everyone who has helped us on our journey -- especially Kendal Scott for her incredible work steering our group and our former Chair, retired Superintendent Hess, who I continue to learn from. What I'm most excited about regarding the Outdoor Education Advisory Working Group is that we are a diverse group of individuals from all over Nevada who successfully came together to reach a goal for our state. Though we may agree or disagree on other issues outside of our working group, we were productive, respectful, and thoughtful with all viewpoints being heard and considered. I'm proud we found common ground and enjoyed each other's company while doing so. I'm grateful we represented a collaborative team on behalf of Nevada.

Nevada is a big place with 17 unique and beautiful counties. I personally always say that I wish that our State Government could ensure that every Nevadan saw Nevada (and always pushed for this idea as a field trip program). I'm grateful to Speaker Yeager for this bill, and his previous bills, which serve as a foundation for all our residents to experience all that their state has to offer. Though our report will not solve access opportunities overnight, we are proud to have asked those on the ground -- from students to teachers to community members -- what they want and how they want to experience the outdoors. As a former educator, I also know the work of this committee aligns with current initiatives such as the NV Portrait of a Learner and work by the Committee on Innovation & Excellence in Education. Whether it's working to combat chronic absenteeism or to inspire authentic student engagement, we know outdoor education can be one solution to supporting our 21st century students.

Finally, I want to thank you. Thank you for taking time to understand these issues and recommendations, and for really thinking about how we can collaborate to execute our vision for all students accessing the outdoors through public education. Though this serves as just a beginning, we hope it's a foundational start for many solutions to come.

Thank you,
Acting Chair Assemblywoman Erica Mosca

Acknowledgements

The Advisory Working Group (AWG) would like to extend its appreciation to all who helped along the way: Speaker Steve Yeager for his vision and consistent leadership in connecting Nevada children to the outdoors; our partners at the Children & Nature Network, National League of Cities, and KABOOM! for funding, resources, and support, with particular thanks to our technical assistance leads Melanie Robinson and David Beard; Mark Duda and the team at Responsive Management for survey development and analysis; the 750 Nevadans who shared their insights through the public survey and focus groups; and all those who participated in AWG meetings. Thank you for making this initiative possible.

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With support from the AWG, NDOR, and partners
For more information visit ndor.nv.gov

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Introduction

Assembly Bill 164, enacted during the 2023 Legislative Session, created the Outdoor Education Advisory Working Group (AWG). This group includes representation from public schools, students, state agencies, bipartisan and bicameral state legislators, healthcare, early childhood education, and nature-based education providers. Over the past year, with coordination support from the Nevada Division of Outdoor Recreation (NDOR), the AWG came together to explore strategies to integrate outdoor recreation into PreK-12 public education.

Beginning in November 2023, the AWG convened to learn from experts, review case studies, and explore research highlighting the importance of time outdoors for children and the role that nature can play in promoting academic achievement and mental, physical, and social well-being for students and their school communities.

This research led to a range of proposed strategies for integrating outdoor education, organized into four key focus areas:

- Capacity Building
- Content Integration
- Outdoor Learning Infrastructure
- Policy

The AWG worked for several months in subcommittees dedicated to these focus areas to develop public feedback questions, integrate feedback results, and provide final recommendations to the full group. These strategies align with the AWG vision: *To collaborate with schools, community leaders, and stakeholders to grow sustainable PreK-12 outdoor learning policies, programs, access, and spaces for the benefit of all Nevada students' wellness.*

“Young people don’t just learn from reading textbooks and taking tests. True learning comes from experiencing the world through our senses and creating lasting memories. We observe and learn through our senses. To truly learn and grow, we must engage all our senses - seeing, smelling, hearing, tasting, and touching the world around us. This is why I am supportive of outdoor education.”

-Outdoor education survey respondent

River Fork Ranch





“The natural world is one of the most important parts of our lives. Integrating outdoor education into overall education standards will motivate our youth to be curious about the world around them, and stimulate passion for learning.”

-Outdoor education survey respondent

Through a bilingual online survey and five stakeholder focus groups, the AWG engaged with over 750 Nevadans to understand their priorities for integrating the outdoors into schools.

These feedback opportunities were made possible thanks to the Nature Everywhere initiative, which selected the AWG’s work from nationwide proposals as the first ever state focused project. As a Nature Everywhere Accelerator Community, the AWG received seed funding from our partners at the Children & Nature Network, National League of Cities, and KABOOM! This support also includes two years of technical assistance for planning and implementation of outdoor education initiatives, with potential for future catalytic grants to advance Nevada’s efforts in implementing AWG recommendations.

So many have already rallied behind outdoor education in Nevada. The AWG hopes that this report can serve as a reference for Nevada’s 2025 Legislative Session and beyond, to build sustainable systems for outdoor education in public schools. This report outlines actionable steps for the State of Nevada to establish outdoor education as a reliable tool for the benefit of Nevada students, educators, schools, and our communities.



Photo courtesy of Travel Nevada

Membership

Erica Mosca (Acting Chair) - Member, Nevada State Assembly

Todd Hess (Former Chair) - Retired Superintendent, Storey County School District

Grace Angel - Early Childhood Education Specialist

Julie Bless - Staff Conservation Educator, Nevada Department of Wildlife

Roz Brooks - Director, Together We Can

Carrie Buck - Member, Nevada State Senate

Brandi Cuti - Counselor, Clark County School District

Melanie Erquiaga - Executive Director, Nevada Outdoor School

Joe Girdner - Superintendent, Storey County School District

Cherese Jones - Teacher, Clark County School District

Carrie McGill - Teacher, Douglas County School District

Julie Pazina - Member, Nevada State Senate

Kendal Scott - Outdoor Education Lead, Nevada Division of Outdoor Recreation

Andrew Snyder - Education Programs Professional, Nevada Department of Education

Sean Thornton - Student, Nevada Public Schools

Astyn Wielkie - Health Care Professional

Toby Yurek - Member, Nevada State Assembly



AWG Members learn about Carson City Parks education programs along the historic California Trail

Background

With support from the Children & Nature Network and the National League of Cities, the AWG began 2024 by learning about the many research-based benefits of regular nature exposure for students. These benefits include improved behavioral outcomes like helping students to focus their attention and regulate their behavior (Arbuthnott, 2023; Berto et al., 2015; Chawla et al., 2014). Nature reduces student aggression and discipline problems, while enhancing attitudes toward and engagement with school (Bell & Dymont, 2008; Maynard et al., 2013; Nedovic & Morrissey, 2013; Rios & Brewer, 2014). Students also experience personal development when they spend time outdoors, including improved communication, increased resilience and creativity, and greater critical thinking and problem-solving capacity (Chawla et al., 2014; Kellert, 2005; Mann et al., 2022). Time outside also strengthens children's connection to nature, which fosters conservation behaviors and attitudes (Cheng & Monroe, 2012).

Students are calmer and less stressed when they have access to nature (Chawla et al., 2014; Kelz et al., 2015; Li & Sullivan, 2016). Engaging the senses with nature can lower blood pressure, boost cognitive function, and improve emotional regulation (Jimenez et al., 2012). Schoolyard nature access promotes physical activity and reduces the risk of obesity across ages and abilities (Dymont & Bell, 2008; Stanley, 2011; Wolch et al., 2011).

Given the plethora of benefits the outdoors can offer, the AWG investigated strategies for advancing nature access in schools and their extended communities, including converting school grounds to living schoolyards, supporting essential outdoor experiences through community-driven Children's Outdoor Bills of Rights, developing youth leadership, and fostering early childhood nature connection.

The AWG examined case studies of state and local programs and policies designed to increase students' access to the outdoors. These include grant programs dedicated to outdoor education, fully funded camp experiences for all students, recess rights, outdoor trainings for teachers, coordination capacity, and more.

Select ideas were taken from this collective research to inform the the AWG's public feedback effort.

"Understanding connections between ecology and community help improve sustainability outcomes and can provide common shared values."

-Outdoor education survey respondent



Walker River State Recreation Area

Public Feedback

Public feedback was solicited through public comment at AWG meetings, an online bilingual survey, and stakeholder focus groups. Across all platforms, there was overwhelming support for outdoor education and recognition of the timely need for creative strategies to reengage students with diverse ways of learning.

Survey

The outdoor education public input survey was made available in both Spanish and English. It was distributed through the members of the AWG's network of teachers, school administrators, parents, nature education providers, community members (collectively called stakeholders), and students through email, newsletters, social media, a press release, and more.

Over 700 respondents completed the survey, including 216 youth voices, to share their thoughts on the importance of outdoor education in Nevada. The survey yielded many notable results, including:

- 99% of stakeholders feel that spending time outdoors is extremely or very important for youth, while 97% of students said it was somewhat, very, or extremely important.
- 97% of teachers say being outdoors improves students' mood, and 81% of students agree.
- 92% of stakeholders support integrating outdoor education and learning into public education.

Information on how to access the full survey report can be found in Appendix A.

Focus Groups

The AWG coordinated five stakeholder focus groups to more deeply explore the opinions and desires around schools and the outdoors. A total of 45 focus group participants included PreK-12 teachers, school administrators, nature education providers, high school students, and university students. AWG members hosted focus groups with additional support from Get Outdoors Nevada, Nevada Outdoor School, Storey County School District, and the Outdoor Adventure Leadership program at the University of Nevada-Reno.

Focus groups revealed an overall desire to address the growing distance between youth and the outdoors. Disengagement with the outdoors was identified by participants as a problem for all Nevada students, rural and urban alike. Students expressed that they have a greater appreciation for learning when they can connect content to the natural world. Participants expressed how outdoor education cultivates values and skills that prepare students for a life of learning and problem-solving beyond the classroom.

A synthesis of focus group themes can be viewed in Appendix B.

Barriers

Through this research and public feedback, the AWG identified specific barriers that currently prevent outdoor education on a large scale in Nevada. While the recommendations in this report will not directly address every barrier for every student, they aim to serve as building blocks to improve equitable youth access to the outdoors.

In Nevada's desert climate, heat and weather were often cited as barriers to outdoor time during school. Survey respondents frequently identified shade and trees as their most desired schoolyard infrastructure. The report includes suggestions around how Outdoor Learning Infrastructure, particularly living schoolyards, can address these challenges.

Another often cited barrier was time, as Nevada schools face demands far beyond academic achievement. The AWG's suggestions for Building Capacity and Content Integration support teachers in utilizing outdoor education without adding undue burden.

Strategies include integrating outdoor learning into the existing standards and schoolwork to leverage the time already required for subjects such as language arts, social studies, science, math, and more.

Finally, investment from the state is needed to leverage further funding and address economic barriers to outdoor education. Policy recommendations outlined in this report address these funding needs and more.

By working to alleviate barriers to PreK-12 outdoor education and by implementing proactive policies and practices, Nevada has the opportunity to become a leader in outdoor education. The AWG's bill recommendations provide a pathway to creating sustainable systems that prioritize outdoor learning for the benefit of students, educators, and communities statewide.



Bill Recommendations

The AWG recommends three bill concepts for consideration in the 2025 legislative session and beyond. The first concept has been selected by the AWG to submit as a bill draft recommendation (BDR), as authorized by Assembly Bill 164 (2023).

1. Establish a sustained network to support outdoor education efforts. The duties of the Outdoor Education Network would include:
 - Developing or highlighting existing outdoor education training opportunities for educators;
 - Creating a technical assistance program to support schools and districts developing outdoor education initiatives, with a focus on:
 - Prioritizing opportunity zones in schools and communities with the least nature access.
 - Assisting schools in securing and managing funding to improve outdoor education.
 - Developing and managing a program to incentivize schools to build outdoor education efficacy through an optional Outdoor School Designation. The designation program would:
 - Develop a standardized rubric for outdoor school designation that includes state standards and curriculum integration, outdoor skill standards, and climate resilient living schoolyards as principles for excellence in outdoor schools.
 - Provide monetary awards, when available, to recognize outdoor education efforts, with funds designated for advancing towards a higher Outdoor School Designation level.
 - Recognize an Outdoor Educator of the Year from Nevada public schools.
2. Establish a new Content Specialist or Program Officer position with the Department of Education dedicated to supporting outdoor education integration into all curriculum areas and other outdoor education work.
3. Increase funding for the Nevada Outdoor Education and Recreation Grant program to a minimum of \$500,000 per fiscal year to ensure dedicated support for outdoor education initiatives statewide.



*AWG Members and
partners meet at Clark
County Wetlands Park
in Las Vegas*

Further Recommendations: Capacity Building

To effectively integrate outdoor education into PreK-12 schools, capacity building is needed at multiple levels of the public education system. The AWG's bill recommendations include a position within the Department of Education dedicated to outdoor education as a starting point for building capacity. Additional personnel outside of state support and classroom teachers are necessary to effectively implement outdoor education.

Establishing an outdoor education specialist in every school or district could significantly improve the consistency and sustainability of outdoor education programming. The AWG examined case studies where capacity has made the difference in empowering classroom teachers to integrate outdoor education into their lessons, added supervision and safety support for outdoor adventures, increased field trips opportunities, secured new funding, and enabled successful partnership with external entities. In the near term, existing school specialists, such as science educators, could be utilized part-time to integrate outdoor education into their focus areas and beyond.

Many underutilized resources that currently exist could contribute to outdoor education efforts. These include lesson plans, curricula, teacher training programs, and non-profit and government agency partners. However, the outdoor education survey revealed a lack of awareness of these resources, with only 31% of respondents reporting familiarity with some of these resources. To address this, the AWG recommends conducting an analysis of statewide outdoor education resources. This analysis would serve as a tool for teachers interested in outdoor education at any level, connect teachers to existing resources, and identify gaps in resource access.

The AWG also recommends that state agencies, including the Nevada Division of Outdoor Recreation, Nevada Department of Education, and Nevada Department of Wildlife work together with the Office of Federal Assistance to research and pursue federal funds for outdoor education initiatives. With continued support from Nature Everywhere partners, these agencies can explore opportunities to leverage federal funding in support of the activities outlined in the AWG's chosen BDR.



Content Integration

While existing lesson plans are underutilized and will benefit from increased visibility, there is also a need to develop additional lesson plans and curriculum, particularly ones that focus on Nevada species, ecosystems, and stories. In public feedback, educators identified prepared lesson plans as the most valuable tool for implementing outdoor education. A specialist within the Department of Education could develop and integrate this content across grade levels for interdisciplinary subjects. Additionally, partnerships with nonprofits and local, state, and federal agencies could be cultivated to leverage their Nevada-specific expertise.

Outdoor education aligns naturally with the skills emphasized in the Portrait of a Nevada Learner. The AWG recommends utilizing outdoor education to develop critical skills from the portrait draft including communication, curiosity, civic engagement, critical thinking, problem-solving, resilience, and courage.

Complimentary to the AWG's BDR, an Outdoor Education Network could identify regionally relevant outdoor experiences and places for Nevada students. These could serve as benchmark experiences for schools to work toward achieving for their students, as well as families and youth organizations in out of school time. These benchmarks could also inform the development of local Children's Outdoor Bills of Rights, allowing schools, districts, or communities to identify meaningful outdoor experiences and build collaborative systems that actualize those experiences for all youth.

There is also opportunity for schools to develop elective courses in middle and high schools focused on specific outdoor skills and literacy. These courses could prepare students to enter Nevada's growing outdoor recreation industry which accounts for 58,000 jobs and generated \$8.1 billion in 2023 (Recreation Roundtable, 2024). The outdoor recreation sector is growing fast. In the same year the overall U.S. economy grew 2.9%, outdoor recreation saw a 3.6% growth rate (Recreation Roundtable, 2024). This economic opportunity requires skilled labor and elective courses could provide students with a pathway to high-demand careers.



Great Basin National Park

“Any and all experiences boost the child’s ability to retain learning. My son learned the word ‘crevice’ while studying about bobcats...He then remembered that word when visiting...hotsprings and saw that the hot water flowed from a crevice in the earth.”

-Outdoor education survey respondent

“I have taken my kindergarten students outside many times to do reading, writing, or science lessons. They loved it and were engaged in completing their work... Students also need a change of environment sometimes to help them understand the lesson better or just a space to learn in that would help them to calm down and redirect them. I love taking our learning outside!”

-Outdoor education survey respondent

The AWG encourages schools, teachers, and administrators to take learning outside, even when the outdoor environment is not the content focus. Activities such as reading, writing, and math can benefit from the improved focus and academic achievement associated with natural environments. The AWG encourages outdoor learning as a regular practice for student and class wellness. The AWG posits that proper outdoor infrastructure (see page 11) will significantly improve the experience and likelihood of regular on-campus outdoors use.

Finally, field trips are important as lasting school memories for individuals and collective student bodies. This view was reiterated often in public feedback, with 75% of students expressing a desire for more outdoor field trips. In focus groups, field trips were described as wonderful, new and exciting, happy, memorable, enjoyable, engaging, interesting, and empowering experiences. These trips become vivid core memories, and are associated with lasting positive feelings. Field trips provide a shared group experience that helps students build relationships with one another and improves classroom dynamics (see Appendix B). The AWG encourages outdoor field trips for students of all grade levels and cautions against policies that restrict or limit these valuable opportunities.



Tahoe Rim Trail

Outdoor Learning Infrastructure

Living schoolyards, also referred to as green schoolyards, are nature-filled outdoor spaces that offer opportunity for consistent nature engagement for school communities. Living schoolyard transformations turn standard schoolyards into community-designed spaces for play, nature connection, and learning. They may include elements such as outdoor classrooms, native gardens, stormwater capture, traditional playground equipment, nature play areas, vegetable gardens, trails, trees, water features, and more. Research highlights the benefits associated with living schoolyards, including promoting cooperation and negotiation and strengthening links between play and learning (Acar & Torquati, 2015; Dennis et al., 2014; Deyment & Bell, 2008; Stanley, 2011).

When considering the development of new living schoolyards, it is crucial to involve the school community, particularly students, in the design, execution, and continued care of the schoolyard. Focus groups revealed interest from older students in conservation projects where they have a greater sense of ownership. Living schoolyards offer a space for students to foster a connection to nature and develop the skills and knowledge to become good stewards of Nevada's natural resources.

Smart living schoolyard design can also save public money in the short and long term. Rob Grunewald, former Economist at the Federal Reserve Bank of Minneapolis, assessed the return on investment of an expansive green schoolyards initiative in Denver. Findings demonstrated short-term cost efficiencies in energy savings and stormwater capture and long-term cost savings in correlated improvements in student behavior and overall mental health, among other benefits (Grunewald, 2024). Considering these positive economic benefits, the AWG recommends incorporating climate-resilient design for schoolyards. In Nevada, trees and shade are important elements to consider for living schoolyards, as public feedback revealed these as the top priorities among adults and students alike. The AWG also recognizes the need to plan for infrastructure maintenance and continued resources. Climate-resilient design elements can help to reduce maintenance costs and resource needs and should be included when pursuing living schoolyard redesigns.

When prioritizing either living schoolyard investment or increased field excursions, the AWG recommends that living schoolyards be given precedent. Nature-filled outdoor spaces on school grounds have the potential to offer the greatest accessibility to consistent time outdoors, and thus greater access to the benefits of nature. By focusing efforts on nature gap opportunity zones, living schoolyards will enhance the places where children live, learn, and play.



“Outdoor education is important for all those living in Nevada. Nevada is unique in that it has high desert, desert, mountain, and all sorts of ecosystems. There are diverse climates and wildlife...I think all children should understand these diverse areas and be aware of all the outdoor activities there are in our state, so they can safely participate in them.”

-Outdoor education survey respondent



Photo courtesy of Travel Nevada

Policy

When asked about funding sources, there was general public support for funding outdoor education through various avenues. The vast majority (91%) supported utilizing state and federal grants to fund outdoor education efforts. The AWG's bill recommendations (see page 7) take this into account, supporting increased and sustained investment in the Nevada Outdoor Education and Recreation Grant program, and outlining the pursuit of federal funds as a key responsibility of the Outdoor Education Network. Additionally, 82% of survey respondents support public-private partnerships, and 77% support the use of economic development dollars to fund outdoor education. The AWG also recommends directing tourism dollars to support student field trips, particularly to visit Nevada's state parks.

Furthermore, the AWG recommends policies to establish and protect a students' right to time outdoors for learning as well as for recess and breaks. Survey respondents on average support recess or outdoor breaks of 35-45 minutes in a regular school day. Unstructured outdoor time benefits all ages including middle and high school students who need time in safe outdoor spaces to relax and recharge. Research suggests that restricting recess and breaks for academic or behavioral reasons is more harmful than helpful and should only be used as a disciplinary measure in extreme cases (McMullen, 2021).

Public feedback revealed that even those Nevada educators inclined to use the outdoors in their lessons may not do so. This was due to unsupportive policies or administration or from an absence of outdoor culture at their school. Teachers with experience in other states explained how their previous schools initiated and supported regular outdoor time, and that this systemic support is lacking in Nevada. The inherent risk associated with outdoor activity, which may be a point of concern for some educators, is proven to be manageable, and when facilitated skillfully, beneficial to learning and student development (Harper, 2017). The AWG encourages all adults with the ability to open the doors to students, including teachers, support staff, school administrators, and parents, to embrace the outdoors as a vital partner in fostering childhood development.

Appendix A

Attitudes Toward and Knowledge of Environmental Issues: Research to Inform Nevada's Outdoor Education Efforts

The AWG would like to thank Responsive Management for their work on this survey and report. The full report and survey results can be viewed at <https://dcnr.nv.gov/divisions-boards/ndor/outdoor-education-advisory-working-group> or by contacting the Nevada Division of Outdoor Recreation at ndor-info@ndor.nv.gov.

Appendix B

Outdoor Education Advisory Working Group Focus Group Themes

The following themes and discussion are the results of five stakeholder focus group discussions conducted by the AWG on outdoor education.

Focus groups revealed an overall desire to address nature-deficit disorder, from both adults and youth. Nature deficit-disorder (NDD) describes the accelerating distance of humans from the natural world and the health and wellbeing issues associated with that disengagement. NDD was identified by focus group participants as a problem for Nevada students, rural and urban alike. Students expressed a desire for increased comfort in and knowledge of the outdoors, indicating that they feel that distance themselves.

Field Trips

When speaking of field trips to natural areas, one Southern Nevada teacher said, “They stick with me along feelings of positivity, excitement, belonging, and fondness.” Field trips are described as wonderful, new and exciting, happy, memorable, enjoyable, engaging, interesting, and empowering. These experiences hold strong in memory, with lasting positive feelings associated with these vivid learning experiences.

Field trips may be restricted by administration as administrative support for field trips is crucial and can be a determining factor for teachers in deciding where they want to teach and work. There is often a reliance on outdoor organizations to make field trips happen. A line budget item for field trips would improve opportunities. Field trips should be the expectation, not the exception.

Field trips provide a shared group experience, helping students build relationships with one another that improve classroom dynamics. When there is opportunity for everyone to attend a field trip, it creates cohesion for students and improves equitable access to nature.

Some feel field trips are preferable over concentrating on living schoolyards, some feel on-campus nature is better, and many say both are needed. Prioritize opportunities to travel to nearby nature. Field trips elicit “aha” moments and have a large impact on students. Sometimes field trips are not as equitable, such as when only students with high grades get to participate.

A wide range of outdoor field trips take place in Nevada, depending upon the locality. A camping experience field trip with cross-grade programming and volunteer opportunities for high school students is an exciting idea. Traveling to new destinations is a unique experience that sticks with students. Fun should be a focus of the programming. Cross-curricular integration in field trips is a space where help is needed. Sports field trips was an interesting idea from one student, who cited sledding as an example.

Appendix B cont.

Class Management

There is a need for adjusting classroom management strategies post-pandemic. Engagement strategies and levels for students have shifted. Kids who are generally disengaged become engaged during outdoor education. In other states, a teacher saw that consistent outdoor programming helped increase attendance, and strengthen teacher/student and student/student relationships.

The outdoors has a beneficial effect on behavior. Kids who cause issues in classrooms have a greater purpose and opportunity to blossom in the outdoors. Restricting breaks for behavioral reasons is unhelpful. Breaks help to solve problems for kids. When recess time is cut, teachers observe increased behavioral problems, creating a detrimental feedback loop. Detention could take place outside for the restorative affects. The outdoors improves responsibility and discipline. It could be a tool for managing behavior.

Teachers require professional development for managing a class outdoors and setting expectations for students in that setting.

Health

Outdoor activity is physically and mentally stimulating. The outdoors benefits social-emotional health, mental health, and brain development. Nature improves regulation, focus, and has a calming effect. Kids are stressed and need that outlet.

“My teacher had times where we would go outside and walk for a couple minutes and after we went back in I was able to focus much better, and I thought that really worked,” said one high school student.

Physical activity levels are higher in the outdoors than indoors for adults, so we should set up students for successful physical activity through outdoor activity. When people spent more time outdoors, they were more active and happier. Outdoor education has been seen in other PE curriculums, but not in Nevada, although there is appetite for it. Outdoor sports are engaging and interactive, as movement creates greater engagement. The outdoors is conducive to physical learning styles. There is also opportunity to teach basic first aid, survival, and personal responsibility.

Academics

“The modern climate requires us to present information in different ways” said one teacher. There is a need to progressively build comfort in the outdoors that has been lost. We need to value learning that is student-centered. The more hands-on learning can be, the better. Outdoor learning should be fun and not feel like a burden.

Appendix B cont.

Kids have difficulty with data analysis and interpreting data, communicating results and justifying reasoning, basic numbers understanding, persevering when learning is difficult. Storey County has identified competencies for student success as adaptability, communication, critical thinking, leadership, and perseverance. The outdoors lends itself to these things naturally. When students go outside, learning happens naturally as students ask more questions and notice more than they might indoors.

Hard and soft skills learned in the outdoors can be beneficial to all subjects and are transferable throughout life. Outdoor learning can strengthen observation skills, critical thinking, and pattern identification, as well as student independence, confidence, autonomy, and leadership skills. The outdoors fosters curiosity, making students more open to and engaged with learning. Students who spend time outdoors are more analytical, more mature, more articulate and can overcome challenges. They have more patience outside. The environment also fosters collaboration between students.

Outdoor education should be formally integrated into standards and curriculum. Each grade could have their own specialty. Students expressed interest in an outdoor education special. Wisconsin has some environmental education standards incorporated into their curriculum, and teachers have seen grades rise as a result. There should be progressive skill-based learning. Students should do journaling and reflection that they can keep from grade to grade.

Outdoor education is and should be interdisciplinary. Field trips and outdoor learning can be tied to standards, but there is difficulty with teaching some subjects in the outdoors. Subject integration, curriculum connections, and planning assistance are needed. A social studies or math curriculum that incorporates the outdoors would be helpful. Kids buy-in more when lessons cross subjects. Many high school students would be interested in working with elementary students because it would be fun, interesting, and look good on a college or job application.

Outdoor research was thought of more fondly by high school students than something like gardening. There is a desire to design and execute research that allows students more autonomy. This can lend a “sense that they are collectively solving for something-gives them work worth doing.” Connection to place boosts accountability for your own learning.

Appendix B cont.

On-campus or Near School Opportunities

“I just want places that look inviting so that we can enjoy sitting outside. I feel like our school is mostly just concrete,” said one student. Students should help to plan new schoolgrounds to give them ownership and a sense of place. Living schoolyards are an interactive project for students to start and maintain. Schoolyard care opportunities for students could foster responsibility.

Curriculum tied to the schoolyard for all subjects and grades would be helpful. There could be outdoor education days in PE that utilize the schoolyard. In WI, there was “Phenology Friday” every week. Teachers who have come to Nevada from teaching in other states reflect on better support for outdoor learning practices that everyone enjoyed and that benefited their schools. We can take what we are already doing outdoors.

Not every school has the same resources in terms of space. It would be great to have green space on every campus. We need more than just grass, there should be restrooms, sheltered areas, and community ponds. The outdoor environment still needs to be suitable for learning. Onsite green space would be a more equitable approach than just field trips. Living schoolyards feel attainable and are easier than field trips while providing more opportunities. Living schoolyards lack transportation costs and could create a more equitable culture. They are accessible, feasible for consistent outdoor learning, and can be infused in the community and values.

We should capitalize on what is near schools, such as local parks and nature walks near schools. Natural spaces on-campus prepares you for bigger adventures. Some teachers use what outdoor space they have often to get more space for moving around, where voices can be louder.

Time outdoors needs to be both cumulative and consistent. Getting outdoors consistently will develop a stronger sense of place and stewardship. There needs to be ample daily time for recess and PE outdoors.

Funding

Needs:

- There are many schools on the cusp of Title I status that don’t qualify for many funding opportunities, despite still having great need.
- Funding is needed for substitute teachers and transportation.
- There are capacity needs for planning and completing grant requests for funding field trips and coordinating logistics.
- Funding to support nonprofits and other partners in schools more often is needed.

Appendix B cont.

Opportunities:

- We should formalize funding access with a budget line item to prepare for outdoor learning.
- Field trips need to be budgeted for as an expectation at all schools.
- Earnings from garden selling programs can fundraise for more classroom supplies and provide a real-world feedback experience for students. It could also fund field trips.

Administrative, Logistical, and Partner Support

Administrative support at a school level and higher is key to making field trips and other outdoor opportunities happen. Upper-level administrators can positively influence access to nature, as teachers with supportive administrations reported greater ability to facilitate outdoor education. If teachers, office support, and other admin are working together, cool things can happen. Coordination needs are at the school level. Local autonomy in how outdoor education happens is important. Any plans from the state need to come with resources.

Office support can make a huge difference. It takes a lot of logistics to get students off campus and into nature. Planning and implementation require help, as do curriculum connections. This all takes time and capacity; there is need for more consistent help for teachers. There is a lack of knowledge for who to go to for support for outdoor learning both within and outside of schools.

Partners need to be brought in as well. Guests and partners make novel experiences possible. Schools need to be set up to be receptive to partnership.

Teacher training and ongoing professional development is also needed. Teachers may lack awareness in terms of planning and facilitation. A team of teachers could be helpful to coordinate and develop curriculum for their school or district. A district could create a committee to support outdoor learning. There needs to be a mechanism to document these outdoor education outcomes.

Barriers

Barriers that were quoted repeatedly include time, funding, transportation, unsupportive administration, and logistics. Standards alignment can be a barrier when they are not considered. Testing pressures cut into time for outdoor learning. Understanding of how important nature is for kids is lacking. Some teachers or administrators may not have pro-outdoor education attitudes.

Appendix B cont.

There is a reliance on grants to fund field trips. Grant funding is helpful, but keeping up with the requirements of grants is burdensome. To involve students in real world activities, schools need supplies, resources, and contacts.

Local school-based programming is needed, because there can be vastly different environments within a school district. A school campus and its affordances can be limiting in terms of what activities can be done there. Safety can be a concern outdoors as well. Some teachers lack training on everything from nature knowledge to first aid and safety protocols to make the outdoors a feasible classroom.

Place-based Learning

Teacher's past experiences with place-based education paved the way for how they would like to teach, to give students a sense of place and belonging, but there is a learning curve to teaching in any specific environment. Teachers expressed a sense of lack of ownership in Nevada when compared with other states.

Place-based learning brings relevancy, purpose, and increased engagement. Building an appreciation for your own area is key. Being outside makes issues like climate change more real. Engaging with and understanding your environment increases connection to learning. Learning should involve citizen science and the solving of local problems.

"It levels the playing field- everyone has a shared story of their home/environment. You don't have to have an accommodation for kids to tell their story, everyone can be active and engaged."

School Gardens and Food Production

There is support for on-campus greenhouses, hydroponics, and outdoor garden space, FFA, and other food production programming, but there is room for improvement in current garden curriculum. Lessons can be too simple. Gardening may not be as interesting to older students, so there needs to be other kinds of opportunities. Many garden programs have students selling their grown food, which can help to further fund outdoor education.

Stewardship and Conservation

Stewardship was a commonly reported impact of time spent outdoors. When students miss out on knowledge of the outdoors, they miss out on the values associated with that knowledge. On the other hand, when we understand our local environment, we can make better decisions about it.

Students expressed a desire to understand issues to a greater extent before jumping into stewardship activities. They desire ownership over conservation efforts and autonomy for directing their own stewardship projects.

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