

The Value of Outdoor Education: Rationale and Results

Key findings from ICF's external evaluation



Background

This document summarizes key findings from ICF's external evaluation of the Maine Department of Education's Rethinking Responsive Education Ventures (RREV) program. RREV is funded by a \$16.9 million grant from the U.S. Department of Education's Rethink K–12 Education Models program and is intended to promote innovation in Maine schools so that all students across the state have access to high-quality and responsive learning opportunities. Since August 2021, over 40 school districts throughout Maine have been awarded federal funding from RREV to support innovative education pilot projects, including 24 Outdoor Education programs.

About Outdoor Education

Outdoor education uses nontraditional learning spaces—including woods and waterways near schools and community partners—in diverse ways to support student learning. Many schools began taking students outside to learn more frequently during the coronavirus disease 2019 (COVID-19) pandemic, and found this approach aligned with the natural opportunities and outdoor industries in their communities. RREV awards have provided schools and districts with funding to construct outdoor learning areas and procure equipment and gear for outdoor learning activities. They have also provided opportunities for teachers to learn how to incorporate outdoor learning in their teaching of course content. Some outdoor learning innovations specifically focus on students who struggle in traditional classroom settings by providing new contexts to develop and showcase their skills, while others expand opportunities for all students to learn outside.

"According to my 7th-grader, when they are outside, they usually have better behavior and a stronger engagement with learning. The whole class feels more connected and they're more interested in what they're learning together."

– Parent

Why Outdoor Education Opportunities Are Important and Innovative

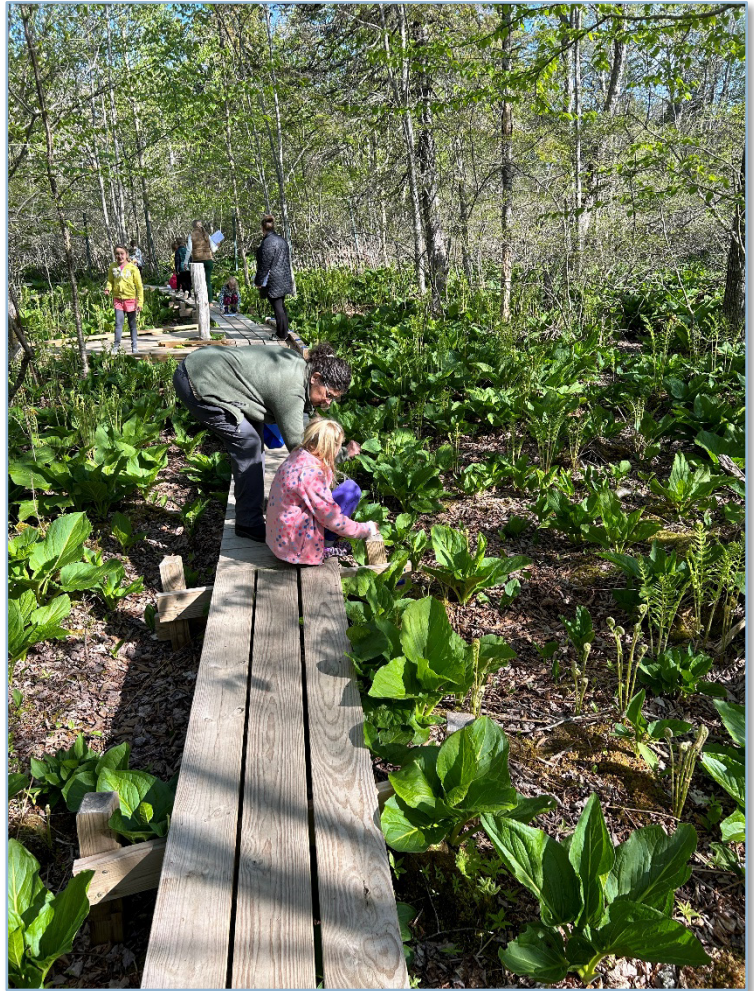
ICF's evaluation identified several reasons why Outdoor Education programs are innovative:

- 1 Utilization of Nontraditional Learning Spaces** – One key element of most Outdoor Education pilots is identifying, constructing, and using outdoor learning spaces such as greenhouses, nature trails, outdoor classrooms, pavilions, yurts, outdoor gardens, and orchards. These spaces leverage natural assets on or near school grounds and offered students opportunities to learn in new settings outside the four walls of a traditional classroom. One school administrator offered a succinct summary of this model when he said, "You don't have to be in school to learn."
- 2 Cross-Curricular Content Integration** – Most outdoor learning pilots provide opportunities for students to engage in activities that involve content from multiple subjects—such as biology, history, writing, and math—as they explore and engage with nature. Several pilots have aligned the new curriculum developed for outdoor activities with school and state academic standards to support teachers' lesson planning in future years. Some schools, such as Maine Academy of Natural Sciences (MeANS) and Deer Isle-Stonington, hired outdoor learning specialists to help educators build the outdoor curriculum. Further, by embedding outdoor activities into the curriculum, pilot teams intend for learning outside to continue beyond the pilot's scope.
- 3 Project-Based and Service Learning** – Most pilots emphasize the use of project-based and inquiry-based learning models to support student engagement and diversify methods for curriculum delivery. To do so,

multiple pilots have invested in professional development for teachers to adjust to the current curriculum and develop new lessons and resources to support these learning models. For example, Gorham High School leveraged video creation and other technologies to engage students in project-based learning—students created video projects highlighting the pilot's implementation to post on the school website and disseminate through social media.

4 Community Connections – Many outdoor education pilots integrate field work and excursions into the curriculum, creating opportunities for students and teachers to better engage with community organizations through regular interactions. For example, regional school unit (RSU) 1 (Bath) Middle School's pilot has helped deepen the school's relationships with local organizations focused on ecology through more frequent trips from the school to take advantage of their learning experiences.

5 Capacity Building for Teachers and Staff – Effectively using nontraditional spaces and other outdoor opportunities can present both a challenge and an opportunity to help develop teachers' capacity to innovate in their approach to learning. Pilots vary in the type of professional development format used, such as coaching models, after school professional development sessions, or multiday intensive professional development sessions, as well as whether teaching staff are mandated to participate in professional development.



First-grade students observing ferns for a science project at Deer Isle-Stonington.

Results

Here are some emerging outcomes ICF has found at RREV schools implementing Outdoor Education pilots:

- 1 More Engaged Students** – Teachers, parents, and students often described increased engagement in course material and better learning retention when outdoor education is integrated into the curriculum. One parent said that their child “looks forward to [being outside] each week,” and one reported that their child “comes home inspired” on days they learn outside.
- 2 Academic Confidence** – A central goal of Outdoor Education pilot projects was to improve academic outcomes by offering students the ability to learn outside the traditional classroom. Overall, students and parents perceived positive effects from these programs on student learning. About two-thirds of students surveyed (63%), and an even higher proportion of parents surveyed (84%), agreed that participating in the Outdoor Education pilot helped them learn this year.
- 3 Increased Mental and Emotional Wellness** – The vast majority of parents (80% of those surveyed) and a slight majority of students (55% of those surveyed) agreed that Outdoor Education improved their mental and emotional well-being. A participating student said that the outdoor pilot at their school “helped my anxiety

and depression and it's helped me learn a lot more faster than I usually would have in person!" Another student said participating in the pilot "made me feel like I was part of something that was bigger than me and it made me happy, it showed me the best way I could learn, which is in a hands-on environment. ... [The pilot] helped me discover the best parts of me and has helped me learn who I am." Some schools, such as RSU 9 (Mt. Blue) and RSU 35 (Marshwood) Great Works School, used formalized assessments to help understand and track student social-emotional development and noticed positive impacts for students involved in the pilots.

4 Accessible and Durable Outdoor Learning Spaces – Many pilots used award resources to take advantage of the surroundings and make them accessible to students of all abilities. These instructional and play spaces will be long-lasting assets for the school and resources for the greater community. Some pilot teams, such as Maine School Administrative District (MSAD) 11 (Gardiner) High School, incorporated this into their pilot designs. School Union 76 (Deer Isle-Stonington), for example, built an Americans with Disabilities Act-compliant trail through a red maple swamp between the elementary school and high school, and in so doing turned otherwise wasted school land into a new outdoor laboratory for students.

5 Impactful Community Partnerships – Schools are continuously working to reach out to community organizations to organize outdoor experiences and leverage innovative approaches from subject matter experts in their area. One school has worked to strengthen a community partnership into a lasting commitment for learning, which involved funding and equipment donated by a local blacksmith and the assistance of a former student in creating a lasting on-campus blacksmithing and metalworking program at the school. Other campuses have partnered with a community organization that provides learning experiences on BMX bikes.



Gardiner students exploring a nearby trail.

"[The pilot] helped me discover the best parts of me and has helped me learn who I am."

– Student