

RREV's Innovative Pilot Template

As part of the **Innovative Mindset and Pilot Development** courses being offered through several of Maine's institutions of higher education, the RREV project uses a consistent template for the creation of all future pilots. Because every pilot created and tested with RREV funds WILL BE published in EnGiNE, we want all of Maine's educators to have the assurance of consistency.

This template provides an outline of the components required of an Innovative Pilot. The information in this template will serve as the basis for requests for school/district level project funding.

Section 1: Define the Need

A. Describe the need for your innovation.

Consider what evidence supports the need for an innovation, and the evidence that suggests your innovation will improve the current situation. at least 200 word count.

Many of our students come to us with significant deficits due to trauma and other life experiences that make academic success difficult. When ACEs (Adverse Childhood Experiences) are prevalent in our students' lives, engagement in a regular classroom setting becomes a challenge. Students struggle not only to focus on instruction and independent work, but also to interact with their teachers and classmates in appropriate and respectful ways.

Our 2018-19 MEA data shows that only 32% of our students were at or above state expectations in reading; only 17% of students met expectations in math. Office referrals due to student behavior are also of significant concern. The need for alternative environments and pedagogy for learning has never been more evident.

Research unequivocally shows that learning outdoors benefits children in a number of ways, both academically and socially. Specific studies show that students who engage in learning experiences outside of the classroom report higher levels of motivation, recall learning more vividly, and have improved academic performance (Takeuchi et al., 2016; Ryan and Deci, 2017). Research also indicates that as a result of learning outside, students develop SEL (Social/Emotional Learning) skills in the areas of self-management, social awareness, relationship skills and responsible decision-making (Price, A., 2019).

However, teaching outdoors can be a logistical nightmare. Balancing curriculum, behaviors, and materials all while providing an enriching, fulfilling experience for students is nearly impossible to do without extensive planning and preparation. Providing teachers with the support they need, through co-teaching, modeling, coaching, instructional resources, professional development, and curriculum will make outdoor learning productive and meaningful. Via outdoor learning, students will experience academic success while learning to interact positively with their teachers and peers.

B. Identify which students would be impacted, targeted, or supported by the innovation.

Review the evidence – quantitative and qualitative data and research – that indicates this group of students is considered the most vulnerable and would benefit from the described innovation.

Data you can use to inform your innovation, rationale, and targeted student population include the performance of various groups of students (e.g., students in rural locales, students from low socio-economic conditions, students with disabilities, students who are EIs, students at risk for dropping out, student who are homeless) with regard to academic achievement, graduation rates, social emotional and mental wellness, economic data, and/or workforce participation.

250 word count.

All elementary students at the Agnes Gray School in grades Pre-k through 6 would participate in outdoor learning opportunities made possible by the innovation; subsequently, these opportunities would be made available to all 1,615 students at the eight elementary schools in the Oxford Hills School District (MSAD #17). Each outdoor learning environment will be ADA accessible and available to all students.

Our 2018-19 MEA data from the Agnes Gray School shows that, overall, 32% of our students were at or above state expectations in reading and in math only 17% of students met expectations. Of our special education population, 13% met in reading and 0% met in math. Students who are economically disadvantaged met in reading at a rate of 27% and in math at 12%.

64% of our students receive free or reduced lunch. 25% of Agnes Gray students receive social work services with our part time counselor; however, the need is greater than her availability. Office referrals due to student behavior are also of significant concern, and 34% of our students have been identified as being of behavioral concern.

Section 2: Describe the Innovation

A. Describe the goals of your innovation.

Consider how your innovation will meet the needs of the identified target student population(s) and how you plan to achieve your goals. Additionally, consider any changes in policy, practice or structures you expect as a result of the innovation.

250 word count.

The innovation will focus on outdoor teaching and learning experiences. Coaching and co-teaching activities, along with integrated, project-based curriculum units, accompanying Resource Boxes, and PD support will provide teachers with all they need to make outdoor learning successful and seamless. The Outdoor Learning Coordinator will work together with classroom teachers to enrich the curriculum and provide students with a learning environment that boosts engagement and fosters self-esteem and motivation. Standards in subject areas will be covered using the online unit plans and Unit Resource Boxes. Daily lesson plans will provide meaningfully integrated instruction covering a variety of standards in language arts, math, social studies, and science.

Our innovation would provide a two-year, full-time Outdoor Learning Coordinator who will support student learning by modeling instruction and co-teaching in outdoor learning settings. They will collaborate with staff at Agnes Gray to write project-based, integrated curriculum units for grades PreK through 6. They will also organize ongoing Professional Development and help coordinate the use of outdoor spaces, communicate successes with stakeholders, share learning with other schools, facilitate educator visits to our site, create an Outdoor Volunteer Corps to support teachers, manage the gear lending library, and facilitate work with community partners, such as Maine Audubon and the Bryant Pond 4-H Camp and Learning Center. Most

importantly, they will work regularly with students and teachers to provide meaningful outdoor learning experiences.

The innovation would also provide all the resources necessary to support learning outside. The curriculum boxes that accompany each unit will include mentor texts, anchor charts, manipulatives, and other materials. All-weather gear for our students will make outdoor learning possible during inclement weather. A fully furnished yurt classroom will provide storage for outdoor learning materials as well as an alternative space for classroom activities in inclement weather.

B. Describe activities included in your plan for each stage – preparation (P) or implementation (I) – of your innovation.

- **Preparation** includes building stakeholder awareness, establishing routines and processes, and coordination of logistics.
- **Implementation** includes planned implementation activities, as well as professional development for the educators participating in the innovation.

Activity	Purpose	Stage (P or I)	Date of Completion	Person Responsible
1. Staff survey	Gather information about teachers' needs	P	2/25/21	Beth Clarke and Sarah Timm
2. Student perception survey	Gauge effectiveness of outdoor learning activities in terms of engagement and participation	P	3/10/21	Beth Clarke and Sarah Timm
3. Presentation to district administration	Garner support from upper administration	P	3/11/21	Beth Clarke and Sarah Timm
4. Presentation to school staff	Inform teachers of the project and their potential future involvement	P	3/19/21	Beth Clarke and Sarah Timm
5. Meeting with researchers from the MMSA	Develop instruments to collect data on relevant metrics	P	3/19/21	Beth Clarke
6. Hire an Outdoor Learning Coordinator	Fill the position necessary for the implementation of the project	I	8/2021	Interview Committee
7. Write project-based, integrated curriculum units	Provide units to teachers that will transition teaching and learning outside	I	ongoing	Outdoor Learning Coordinator

8. Provide professional development and coaching to staff district-wide	Support staff as they transition to outdoor teaching; provide site visit experiences	I	ongoing	Outdoor Learning Coordinator
9. Organize and facilitate site visits for students and staff across the district	Provide on-site opportunities for observations of lessons and conversations with staff	I	Ongoing	Outdoor Learning Coordinator
10. Assemble materials for curriculum boxes	Provide the materials needed to teach the units	I	Ongoing	Outdoor Learning Coordinator
11. Create and manage an Outdoor Volunteer Corps	Support teachers with management teaching outside	I	Ongoing	Outdoor Learning Coordinator
12. Establish infrastructure	Purchase and manage the additional needs for outdoor learning	I	Fall 2021	Outdoor Learning Coordinator
13. Develop and implement an evaluation model	Gauge student success based on the project and to help refine the model	I	Ongoing	MMSA researchers
14. Manage the gear lending library	Provide additional opportunities for students to access necessary items for outdoor experiences	I	Ongoing	Outdoor Learning Coordinator
15. Implement curriculum units	Make use of lesson plans and materials provided for outdoor learning	I	Ongoing	Teachers
16. Facilitate work with community partners to include field trips	Provide opportunities to collaborate with local partners	I	Ongoing	Outdoor Learning Coordinator
17. Expand outdoor learning to include summer programming	Provide resources and PD for summer program staff	I	Spring/Summer of 2022	Outdoor Learning Coordinator/Summer Program Director

Section 3: Define Innovation Outcomes & Measure to Assess Outcomes

- A. Identify the outcomes (*i.e., student outcomes, changes in instructional practices, changes in student practice*) that you expect to see as a result of your innovation. *350 word count.*

Consider both short-term and long-term outcomes, at different points in the time (e.g., at 6 months, 12 months, 2 years and 3+ years).

With the co-teaching and modeling provided by the Outdoor Learning Coordinator, the Unit Plans and Boxes, and an established infrastructure to make this work possible, teachers in all eight elementary schools will have the tools and support they need for meaningful, integrated learning in outdoor settings. Teaching and learning outdoors will become a regular part of our school's culture and will be a model for other schools across the district.

According to The Children's Nature Network, the benefits of these active, integrated, meaningful educational outdoor learning experiences will...

Provide students with a learning environment that boosts curriculum mastery in science, math, and language arts

Produce gains in self-esteem and motivation

Help students focus attention

Regulate behavior

Enhance attitudes and engagement with school

Support creativity, critical thinking, and problem-solving

Promote social-emotional functioning and pro-social and cooperative behavior

Specifically, we expect to see a shift to outdoor learning continue in the fall of 2021 and increase throughout the first year of the project as outdoor co-teaching and modeling occur, unit plans are created and implemented and professional development is provided. This shift is expected to result in the following benefits:

- STAR scores in reading and math will increase by 10 percentage points as measured by student data.
- Student engagement during outdoor instruction will increase to 85% on average; with strong unit plans based on high-interest activities, students will be more engaged in lessons as measured by an administrator using a walk-through checklist, as well as by student perception surveys.
- SWIS (School-Wide Information System) behavior referral forms will decrease by 25% ; with a higher level of engagement, students will show a decrease in behaviors that detract from learning.
- Students will demonstrate mastery of 30% more standards; with standards-based unit plans and high quality instruction, students will be more likely to demonstrate mastery of a greater number of standards.
- Students will indicate a 25% stronger connection to nature as measured by a survey; with more time spent learning outside, students will develop an appreciation for their outdoor surroundings.

- The percentage of students who are truant will decrease by 10%, and overall attendance will improve by 5%.

B. Describe your plan for collecting and reviewing data to assess your innovation outcomes.

Potential data to collect includes qualitative and quantitative data (e.g., surveys, interviews, focus groups, observations, exit tickets, and on-demand assessment(s) that can be considered.

Data Type	Baseline (B) Interim (I) Summative (S)	Frequency of Data Collection	Person(s) Responsible for Collection and Data Quality
1. Perception surveys: Staff (Collect data on staff perception regarding student engagement, academic success, ease of planning and transitioning, and overall success of outdoor learning experience)	B, S	twice per year	Outdoor Learning Coordinator
2. Perception surveys: Students (Collect data on student perception regarding engagement, academic success, enjoyment of lessons)	B, S	twice per year	Outdoor Learning Coordinator
3. SWIS (School-Wide Information System) behavior referrals	B, I, S	three times per year	Outdoor Learning Coordinator/Principal
4. NWEA state testing results	B, S	twice per year	Outdoor Learning Coordinator/Principal
5. Connectedness to nature surveys - students	B, S	twice per year	Outdoor Learning Coordinator
7. District standardized tests (STAR)	B, I, S	three times per year	Outdoor Learning Coordinator/Principal
8. Walk-through checklist (Collect data on engagement level of students and success of lesson delivery)	B, I, S	three times per year	Outdoor Learning Coordinator/Principal
9. Perception survey: Parents (Collect data on academic success, student	S	once per year	Outdoor Learning Coordinator

enjoyment, and student engagement)			
10. Attendance data collection	B, S	once per year	Outdoor Learning Coordinator/Principal

- C. Describe how you will **scale and sustain** your innovation, including necessary policy changes, changes in mindsets, capacity-building activities, and **long-term financial sustainability**. *250 word count.*

Consider the systems changes that this innovation will require and promote.

An outdoor learning model will be implemented and a structure developed for site visits and PD for district elementary staff. The coordinator position will be broadened in Year Two to include supporting other district elementary schools. We will use metrics to measure growth and make adjustments to the pilot structure in order to move forward with broadening the project to include additional schools.

Long term, we will continue to provide coaching, co-teaching experiences, and professional development to support necessary shifts based on staff and student needs. Additional staff will be trained and provided with coaching support and we'll continue to measure progress using metrics developed and identified in the first year.

It will be important to share successes with parents, community, school board, central office staff, and other schools through site visits and parent nights. The coordinator will provide a date-driven presentation to the school board. Articles sent to local newspapers for publication will highlight outdoor learning to increase the public's awareness of initiatives.

Long-term financial sustainability would be contingent on MSAD#17 absorbing the cost of a district-wide outdoor learning coordinator after Year Two. Central Office Administrators (including the superintendent and assistant superintendent) responded positively to our pilot presentation and were willing to consider the possibility of this position becoming a part of our district's budget in 2023. Schools would need to use their curriculum and materials budget to support learning outside and apply for grants to develop infrastructure and to purchase and replenish supplies.

- D. Describe the feasibility study you engaged in during the development of your innovative pilot plan, including which aspects of the plan for the pilot were reviewed, which stakeholders were engaged, feedback received and revisions made to the plan as a result of the feedback. *150 word count.*

The aspects of the plan that were reviewed include the job description of the outdoor coordinator, the structure and content of the units to be developed, and the type of infrastructure expansion. The stakeholders involved were staff, students, and upper administration. Feedback received from these stakeholders led to the strengthening of the connection with the existing summer program, concerns regarding sustainability, teacher and student buy-in, and the need for a Volunteer Corps to support teachers in outdoor classrooms.

Revisions made include the shift from a one- to two-year pilot, development of a co-teaching and coaching model for the coordinator, the inclusion of site visits, expansion of professional development to include administrators and staff from the seven other elementary schools in the district along with summer program staff, an expanded vision to include the summer program in year two, and the incorporation of a Volunteer Corps program.

Section 4: Identify Key Expenses

- A. Identify the key expenses associated with the preparation, implementation, and ongoing refinement of your pilot. *150 word count.*

Expenses could include staff time, materials, professional development activities, facilities, and other related expenses. This section does not need to include specific costs, but rather list out the different costs that should be considered to implement the innovation.

\$140,000 for a full-time two-year position

\$30,000 for a yurt

\$5,000 for yurt decking

\$20,000 for data collection and analysis with Maine Math and Science Alliance

\$10,000 for classroom furniture

\$10,000 for field trips

\$10,000 for materials

\$20,000 for professional development (to include district elementary school site-based visits to Agnes Gray)

\$5,000 for outdoor gear for students