

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 your innovation.

Consider what evidence supports the need for an innovation, and the evidence that suggests your innovation will improve the current situation.

What problem(s) are you solving? System map, insight and future mining and blue card.

This pilot seeks to innovate grades k-8 education, focusing on student's social emotional well being and mental health concerns. The changes in our world and our schools brought about by COVID-19, truly highlighted the already serious gaps in social-emotional well being and mental health concerns in children. The Trenton School is located in the school district AOS91 and serves approximately 150 students. It is a small rural school, with over 50% of our students receiving free or reduced lunch. Our students are struggling with their mental health and overall school engagement. Trenton Elementary has also been an identified Tier 3 Title One School from the DOE since 2014. Low test scores and low economic status has meant that Trenton has been a target school for the state for many years. The funding and support from the DOE has allowed for professional development, but lacks funding need to bring in new innovative changes that directly serve students well being. Many attempts have been made over the years to use the professional development money to implement new social emotional learning approaches and each of those have made a slight improvement on the overall well being of Trenton students, but we still need to make the big changes written in the plan below to develop a sustainable change that will impact current and future students in a powerful way

Although we are in an unparalleled area for beauty and natural resources, many of our students have never visited our local parks, trails, and beaches with their families. Numerous studies have shown that an integrated curricular approach that includes place-based strategies and outdoor learning, lead to academic success and positive social-emotional outcomes. Now is the time to transform our school into a place where the full scope of our student's development is prioritized, including the need to access outdoor spaces and places.

Feedback from students and families on end of the year surveys indicate a need for change in classroom instruction to engage more students. Students also indicated the desire for more outdoor learning experiences. The students engagement directly impacts the students overall well being. Hands on and place based learning is missing from many classrooms and when those experiences are delivered through outside providers (ex: Maine Outdoor School) student engagement increases. Students experiencing these programs also long for similar instruction in their classrooms. By

partnering with programs such as Maine Outdoor School for both student programming and professional development we can bring experiential learning to students on a day to day basis rather than just a few experiences a year .

In order to develop a whole child approach to education that encompasses cognitive development, social-emotional development, and physical development we need to ensure we are developing relationships and utilizing mindfulness. A whole-child approach to education with outdoor learning as the central focus, is a way to strengthen educational equity and ensure every child reaches their full potential. According to Child Mind Institute, an organization dedicated to improving children's mental health and learning disorders, the average American child spends about 4 to 7 minutes a day playing outside and over 7 hours a day in front of a screen.(Cohen, 2022). This sedentary lifestyle has resulted in an increase in childhood obesity, increased diagnosis of attention deficit disorder, decreased physical abilities, decreased mental health, lack of coping skills, and the inability to self-regulate. These changes in childhood are leading to challenges that are impacting children's overall wellbeing which is in turn causing more frequent illness to anxiety and lack of emotional control. Learning outside of the traditional classroom setting is necessary toward building children's confidence, teaching them responsibility and lowering stress. Young children are spending the majority of their waking hours in a physical school setting, so it is critical to include teachers in the process of incorporating more time outdoors in nature (MacQuarrie, Nugent & Warden, 2013).

Research indicates that kids who spend less time outside, have a 30% higher risk of neurotic, stress-related, or psychosomatic disorders. The children were also at higher risk for mood disorders and substance abuse (Engemann, 2019). Studies indicate that playing and relaxing in natural settings can defuse stress. Brief nature walks can reduce anxiety, distraction, and symptoms of ADHD. And when schools take kids outside to learn, kids have become more motivated and self-directed. (Dewer, 2019). We want our students to succeed. By giving our students the chance to participate in a hands-on, engaging, outdoor experience, students will be better able to self regulate, focus and cope with challenges they face everyday. By working with our community partners, children will have the opportunity to engage with others, both peers and adults that they may not normally come into contact with and see that they can be successful at whatever they are faced with.

TREE-Trenton Rethinking Experiential Education is a k-8 initiative that embeds outdoor learning into a child's school experience. We want to rethink how all of our students get their needs met, in a thoughtful way that increases independence, peer relationships, self awareness and overall mental health. We will integrate therapeutic services, STEM based learning, and outdoor collaborative experiential learning into the student experiences. We will use field work and place based learning in the living world in each child's school day. Students will participate in an engaging, outdoor experience that will help them to build social connections and increase their self esteem while reconnecting with our natural world. Our aim is to increase student attendance, engagement, and self-regulatory skills.

In order to accomplish this we will use an RTI model to tier the access to these experiences so that all of our students will be exposed to engaging and meaningful learning opportunities. In this model, Tier 1 students will be all students. Tier 2 students are students who are identified through a SST process and need support for a short time to monitor their improvements. Tier 3 students are students identified by an IEP or 504 plan and need continued services to address their current diagnosis.

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.

System map, insight and future mining and blue card.

This innovation has one commonality and that is to create and deepen equitable access to the outdoors and the natural world through place based experiences. In October 2021, the American Academy of Pediatrics and the American Academy of Child and Adolescent Psychiatry, declared a national emergency for children's health. We know that being outside lowers stress levels, fosters connections with oneself and others, and helps regulate the nervous system. Our innovation responds to this concern directly.

This innovation will benefit 100% of our k-8 students, but will also target those who struggle with mental health concerns which turn into truancy concerns or dangerous/challenging behaviors. Though all students will benefit from our programming, those who we identify as a tier 2 or tier 3 student will receive more targeted services to address their mental health or emotional needs.

We have identified these students by gathering data regarding IEP and 504 status. We also gathered data from our guidance department on all students who were screened during the 2022 school year. These students completed a risk assessment with either our guidance department or school psychologist. In addition, student data was reviewed in PowerSchool to identify students chronically absent or chronically truant. Observations from classroom teachers and school staff were also used to identify students. NWEA data also narrowed down our group by identifying the students who were struggling the most in reading and math. Follow up in person discussions with these students by staff lead out team to a narrowed down list of innovations that would best meet these students' emotional needs.

37% of our students were considered chronically absent in the 2021-2022 school year. Chronic absenteeism has had a major impact on their school performance. Many of these were children about whom we already had concerns about were not only flagged for truancy and absenteeism, but that were observed by teachers as disengaged or behind in social awareness or academics. In many of these cases there was also a chronic lack of follow-through from the parents. We believe that to improve the attendance of these students we need to make learning engaging and work to convince the students that they want to come to school each day. Chronic absenteeism is often linked to mental health concerns and can cause students who fall into this category to suffer from anxiety or depression. Quickly engaging these students in innovative ways to increase their presence, build their confidence and improve their overall well being is the goal of our innovative team.

38% of our students struggle with behavior (based on our behavior reporting form) and .04% had to have risk screening assessments just this year alone. Each of the students who had risk assessments completed by the guidance teacher underwent repeated screenings. This indicated that the services offered did not address the risk and that more services are needed. In the spring of 2022

Trenton used ESSER grant funding to bring in a social worker once a week. Quickly we realized that these services were needed more than once a week to begin to serve the number of students struggling with mental health concerns. In the fall of 2022 we were able to contract with our social worker for two days a week until January and then one day a week from January - June. Clearly funding is still needed to continue and increase this position to a minimum of 2-3 days per week. The immediate impact noted by students is that they look forward to speak with Mrs. Sawyer, she helps them better understand themselves and that they are learning problem solving techniques that are helping them be more successful in and out of school. These findings come from conversations that Mrs. Sawyer has with the students she works with. The students identified as a tier 2 or 3 are the students who rise to the concern level which initiates her work. Other lower level 2 and tier 1 students are able to meet with our school guidance counselor. Mrs. Sawyer has been involved in our innovative design process and has provided feedback from students on what kind of programming that they are interested in and in need of.

More than 50% of our students are identified as coming from low socio-economic status (SES). Low SES in childhood is related to poor cognitive development, language, memory, socio-emotional processing, and consequently poor income and health in adulthood.

Additionally, 32% of our student population receive special education services. With an integrated focus on the whole child this population of students will benefit as well. This high percentage of special education students at Trenton Elementary means that not only are we heavily focusing on our special education population, but that every classroom in our school is struggling to engage this population in the general education setting. This then requires a large number of our students to be removed due to academic or behavior needs which just adds to the lack of confidence, hinders social interactions and divides our student population causing mental health concerns to rise.

Year 1 Priorities #s – 40% of student population will be identified as Tier 2 or Tier 3 by:

****Chronically absent students or chronically tardy students**

- Used attendance data to select students

****Students who have had a risk assessment in the last two years**

- Used guidance data from risk assessment screening form to select students

****Students with behaviors that impact their learning or the learning of others**

- Used the Trenton behavior reporting form to select students

****Students recommended by staff or through data as a low performing, but capable learner (low engagement, trauma-based concerns)**

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.

Yellow card - Promise, proof and also data from some PDSA cycles

This innovation will meet the needs of these students through a comprehensive whole-child approach that focuses on cognitive, social-emotional, and physical development and with outdoor education at

the heart of it. In approximately one hour per week, targeted students will experience one of the novel outdoor experiences listed below – therapeutic, creative or STEM based—as well as up to 4 hours school-based outdoor academic time. Our aim is that children will be happier and more successful at school, which will help increase each child’s self-regulation skills and overall mental health, while at the same time decreasing the rate of truancy, mental health and behavior referrals.

Our color coding system is set up to separate each of our key components broken down on the financial component of the grant. Examples are provided, but service providers, partners and supplies are not limited to only the designated items below.

Therapeutic Services to build confidence and create connections to self/peer

1. Riding Lessons @ Willowwind
2. Art Therapy & youth art workshops
3. Gardening
4. Cooking
5. Volta – climbing/team building

Outside Learning/Lessons

1. Outdoor learning supplies update
2. Greenhouse-Growing Up Green Program
3. STEM immersion week (like arts week)
4. Maine Outdoor School - Hazel Starks Programming

Creative play

6. Meditation space-sit, comfortable, rake sand, rock spiral, solar powered water feature?
7. Sensory walk, mindfulness stations
8. Outside weaving station, drums
9. Story walks

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

- **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.	Meeting with School Board and Administration	Building Stakeholder awareness	P	June 2022	Crystal DaGraca
	Meet with Heather Webster, Connors Emerson Principal to	Idea & Feedback Gathering	P	June 2022	

	review the success of the Willowwind program at CES	Idea & Feedback Gathering	P	June 2022	
	Interview Staff				
	Students	Find out areas that students are interested in (research)	P	September 2022	
	Activity/Interest Fair				
	Google Form sent to students after the Activity/Interest Fair	Students indicate areas of interest so staff can coordinate activities (research)	P	October 2022	
	Contacting and coordinating experiences for students	Secure activities for students to participate in	P	Winter-Spring 22-23	
	Parent Information Night	Provide families with information regarding possible extension learning activities	I	Winter-Spring 22-23	
	Students participate in planned/coordinated activities	Students will begin therapeutic riding, cooking, gardening, MOS, & more		Winter-Spring 22-23	
2.	Meeting with staff to discuss outdoor learning/science integration	Research & professional development	P	August/September 2022	Crystal DaGraca
	Survey students to determining background/experiential learning information	Research & planning	P		Hazel Stark
	Students and staff participate in Maine Outdoor School programming	professional development/student engagement	I	Fall of 2022-Spring of 23	
	Inform parents/school board of programming	stakeholder awareness	P	Fall of 2022	
	Contact media (news and newspaper) to share story about outdoor programming		P	Spring 2023	

	Meet with staff & Hazel to reflect on year of programming	publicity/celebration Sustainability	P P	Spring 2023 Spring 2023	
3.	Research outdoor learning spaces/classrooms/natural playgrounds Survey staff Survey students Work with Friends of Acadia and landscape/builder to best utilize our existing spaces Purchase supplies for outdoor learning space	Learn about the possibilities to add natural elements to school property Learn which staff are interested in creating outdoor learning activities in our trails (story walks/development of kiosks) & brainstorm ideas for creative play/mindfulness spaces and when they will be used Learn about student interest and knowledge of natural playspace / mindfulness centers purpose Create a map of each space outlining its purpose	P	September 2022 October 2022 November 2022 December 2022 Spring 2023	Crystal

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.

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).

Impact math game plan and yellow card promise and proof and PDSA cycles

Students will participate in an engaging, outdoor experience that will help them to build social connections and increase their self esteem while reconnecting with our natural world. Our aim is to increase attendance and students' abilities to be able to self regulate.

In the first six months of our innovation, students will be working with experts in various ways all of which will be incorporating social-emotional learning, physical movement, and outdoor learning pedagogy. Children will have more opportunity to be engaged in authentic learning experiences. In the first six months of our innovation, outdoor learning spaces will be developed. We will design and build outdoor learning spaces that are conducive to whole-child learning. These spaces, in the woods around our school, will support the integrated curriculum and also the connection to nature that research has shown is vital to building resilience and improving overall mental health. By creating these outlets and educational opportunities for students, they will feel more connected to earth and nature. They will benefit from the outdoor learning environment. A study from Harvard states, "Research has shown that outdoor learning can have huge benefits on student mental health and academic performance. Students are often calmer and better able to focus when learning in nature, and teachers have reported better behavior and social interactions with fewer disciplinary issues." School board members, parents and administration will also be actively engaged in the future funding at this point. Students will be asked to reflect on their experiences and the budget will be developed for the following year to support continued services.

After twelve months of our innovation, teacher's instructional practices will include integrated units that span from September to June. They will have had a chance to teach units throughout the year and can reflect on what went well and what needs to shift. Teachers will report that students are happier with the increased time outdoors and authentic learning opportunities. According to surveys, both students and teachers will report an increase in attendance and self regulation within students.

After two years of our innovation, 80% of our teachers will be more confident with planning and teaching integrated units of study which incorporate the outdoors. Teachers will understand the connections between children's physical, social-emotional, cognitive, and academic development.

The goal of this program is that 80% of students will self-report that they are benefiting from this innovation physically, cognitively and/or socially-emotionally.

This may include a decrease in behavioral referrals, increased mental health and the ability of our students to self-regulate. Student attendance/tardiness will also be monitored and measured to note improvements in these areas.

The impact of this initiative will be measured with a bi-annual student survey. Outdoor classrooms will be maintained by teachers, students, and community volunteers.

A. Describe your plan for collecting and reviewing data to assess your innovation outcomes. **Fermi estimating impact game plan.**

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) System map Interim (I) Summative (S)	Frequency of Data Collection	Person(s) Responsible for Collection and Data Quality
1	Attendance	2021-2022 (B) RTI – SST Meetings (I) End of Year State Reported data (S)	Daily Every 6 - 8 weeks Spring	Steffani Roguski Haley Fenton Crystal DaGraca
2	Tardy	2021-2022 (B) RTI – SST Meetings (I) End of Year State Reported data (S)	Daily Every 6 - 8 weeks Spring	Steffani Roguski Haley Fenton Crystal DaGraca
3	Risk Assessments	2021-2022 (B) RTI – SST Meetings (I) End of Year State Reported data (S)	As needed Every 6 weeks June	Nancy Eddy Dan Rynkiewicz Crystal Dagraca
4	Google Forms - tracking student behaviors	2022-2023	September (B) December (I) March (I) June (S)	Crystal DaGraca Snow Ross
5	Google Forms teachers/staff	2022-2023	September (B) December (I) March (I) June (S)	Crystal DaGraca Snow Ross

6	Pear System	2022-2023		Hayley Fenton
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B. Describe how you will **scale and sustain** your innovation, including necessary policy changes, changes in mindsets, capacity-building activities, and **long-term financial sustainability**.

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

PDSA and Fermi estimates (first year and long-term estimates)

First year target group -

Year 1 Priorities #s – 40% of student population will be identified as Tier 2 or Tier 3 by:

- **Chronically absent students or chronically tardy students
 - Used attendance data to select students
- **Students who have had a risk assessment in the last two years
 - Used guidance data from risk assessment screening form to select students
- **Students with behaviors that impact their learning or the learning of others
 - Used the Trenton behavior reporting form to select students
- **Students recommended by staff or through data as a low performing, but capable learner (low engagement, trauma-based concerns)

Initial cost \$250,000

Admin costs

To sustain our outdoor learning and mindfulness programming we will hire a staff member that will act as our RTI behavior coordinator. This person will work with our RTI academic coordinator and our RTI team. Our RTI team will be reviewed in January and their positions will be recommended to be paid out of the regular budget for the 23-24 school year. Hazel Starks with the Maine Outdoor School will be moved from a primary/co-educator to an educator and consultant. After the REVV funding is used to teach students (Hazel) in the outdoor setting the staff will have also been trained. In future years, teachers will work with Hazel as a consultant to continue the lessons created together and those that will need to be created in the future. The funding for this ongoing support will also come from the Trenton Elementary School budget either through REAP funding (professional development) or through the teacher professional development lines. The programming provided directly to students will continue to be funded through Frenchman Bay Conservatory, future outdoor grant funding or through the school budget as a special academic program.

Transportation

Year 1 - The vans purchased will be used to transport students for student programming rather than using the school bus. Currently Trenton contracts with Cyr bus and we are not only charged for gas, but also mileage. In addition to the expenses related to using the bus we also struggle to find bus drivers to support our special programming. The use of the vans will allow students much more flexibility and the opportunity to participate in more local programming. Three of the partners (Willow Wind, Volta and Art Waves) are all within 8 miles of the school. Being able to use the vans to transport small groups of students to therapeutic

services on a more regular basis will allow these services to happen during the school day rather than only after school. These services will be supported by our RTI behavior coordinator or guidance counselor so that the vans will be driven by a staff member who can also work with the students on social emotional needs during the programming.

To sustain the purchase of the vans, maintenance of vans will be paid for by Trenton School budget. The 23-24 school budget will also need to include a budget line for gas for the vans, not only the school buses.

Outdoor Classroom Structures

Friends of Acadia will be used in the future as a support group to update and help maintain the outdoor learning trails. They have supported us through Friends of Acadia grants and trail crews who have helped us with the building of our current trails. With the new funding we will be able to update our existing areas and then work with Friends of Acadia and local volunteers on the upkeep of the structures and spaces.

After the REVV funding has been used to purchase the initial set of gear for outdoor learning, we will ask local businesses to donate 1 set of grundens or muck boots per year. Our local business who will be contacted is DownEast Fishing Gear. If they are not able to donate one set of gear then we will add funds in our budget to support purchasing new sets of gear yearly to build our collection and replace gear as it ages or gets ruined.

For students to continue to access therapeutic services from WillowWind and other local businesses once the REVV funding is used, we will move the funding to the co curricular funding lines in the budget. This program will either continue during the academic day or will be moved to an after school activity.

We will show the impact on children and staff with other invested stakeholders such as parents, school board and community members. This innovation will be an essential part of starting our students on a path toward self confidence while strengthening curriculum and instruction. Parent and community engagement will be critical in the success of the program, so we will actively engage and invite these stakeholders to all of the REVV programming and updates. Adding tons of pictures and information into the school newsletters will get the community excited about all of the changes and opportunities for students. Having the students present to the school board, select board and at the town meeting will help to support the additional funds that will be requested in the 23-24 school budget.

- C. Describe the feasibility review 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.

Summary of PDSA cycles (including prototyping PDSA cycles)

The innovative concepts related to improving student's mental health has come from concerns shared by families, staff, students and the school board. All stakeholders understand the impacts

from this pandemic and have been working collaboratively to brainstorm and create learning environments for students that are engaging and motivate them to be successful.

Our RTI team RTI behavior coordinator will be in charge of communicating with and gathering information from all stakeholders to assist in executing the purchases associated with the REVV funding. The goal of this team is to not only monitor and target students who need additional support, but to educate all stakeholders. Providing regular feedback to stakeholders on the success of our REVV pilot will build support and promote the success of our efforts, which will require future support and funding from our school budget and local community.

Over the last year, staff, students and families have been surveyed. These surveys have asked for feedback on teacher performance, engagement, support needed to be successful and what types of wellness/mindfulness activities would be the most beneficial. Through these surveys it has been clear that all stakeholders have different insights as well as varying interests.

Gathering both qualitative and quantitative data up to this point has helped us to determine the next steps to improving the mental health of our students. We believe that we can continue to collect quantitative and qualitative data to support our future decisions and track the success of our programming and use of the REVV funding.

The RTI Team and all Trenton Staff will participate in book groups (Responsive Classroom - Morning Meeting/Advisory & MindUp) to collectively come to agreements, develop universal vocabulary and create a behavioral system that supports student growth and success.

Section 4: Identify Key Expenses

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

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.

The key expenses associated with our pilot include specialist fees (i.e. MOS), general supplies, outdoor gear, transportation, site development and personnel services (admin. costs).

Budget- \$250,000

Admin. Costs- \$50,000

This would include the hourly rate for staff working on this pilot outside of school hours. Any direct consultation service from experts.

–REVV Project Manager/RTI Behavior Coordinator –\$50,000

Transportation (vans) \$100,000

This would allow for transporting students to services not on our school campus, including general maintenance, upkeep, gas, taxes and fees.

Outdoor Classroom Supplies- \$50,000

This would include the purchase of materials to support outdoor learning

- Seating for outdoor classrooms
- Updates to current outdoor classrooms(seating, table space, boards, etc)

Mindfulness (kids & adults)- \$10,000

This would include materials, work with students, professional pay for training of staff.

–Responsive Classroom (Morning Meeting & Advisory books)

–Mind Up Curriculum (k-2, 3-5, 6-8 books)

- trainer fees

Supplies- \$15,000

This would include materials for outdoor creative structures, materials for student learning (forest Kindergarten),

- Muck boots
- Rain Gear
- Hats
- Mittens
- Neck warmers
- Kiosk (outdoor learning centers/stations)
- Outdoor learning board (chalk or white)
- Clipboards
- Outdoor portable seating (cushions, buckets, etc.)

Community Partnerships - social/emotional experiences (ex. WillowWind, ArtWaves, Volta, etc) - \$15,000

This would include weekly small group lessons for cohorts of students.

MOS (kids & adults)- \$10,000

This would include direct time working with students outside, curriculum units for outdoor learning, building practices that support student growth. It will also include some ongoing coaching and feedback for teachers/staff.