



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.

As a result of COVID-19 and the disruption it created in traditional student learning, MSAD59 has had to refocus on topics such as student engagement, physical fitness, and social/emotional wellbeing of students. At Madison Elementary School, staff implemented outdoor learning adventures in order to increase student engagement, create ways to promote physical fitness and address the social/emotional needs of their students. The "traditional" summer school experience was transformed into the "Summer Summit Academy" that was thematic-based and used the outdoors as the "classroom" to entice greater participation. (The first year there was about 40 students involved and this past year the attendance more than doubled.) Teachers were able to bring the learning outdoors with hands-on educational resources to engage all students regardless of learning abilities. At the conclusion of the SSA this year a survey was given to parents and students for feedback. The responses overwhelming showed positive success. Sample testimony from both groups supports the success – "the outdoor learning was fun", the students were engaged the entire time", "my child can't wait for next year". As a result of the participation success, the need to access the M.E.S. Pathways to Exploration Trail system became apparent. This "resource" would offer so many more options for hands-on learning through all subject areas and could be expanded to be used throughout the year by all classes. The "out of doors" classroom would offer expansion of the SSA option, give all grade levels opportunities to create learning experiences through reading, writing, science, physical education, and social/emotional needs, just to name a few, without limitations because of handicapping disabilities. The M.E.S. Pathways to Exploration Trails System is a parcel of land/trails that was purchased in 2000 by the Madison Elementary School as part of the new construction. The primitive trails system, that currently exists, is a nature-based resource for children and teachers that follows the Kennebec River. The original selection of this particular wooded area came about as the quickest and safest access point (ALICE training) for students in the event of a schoolwide emergency, however, students with handicapping conditions face huge obstacles because of the current terrain. In addition to offering a magnificent resource to expand the outdoor hands-on experience for students, the RREV funding would help to eliminate the barriers of accessibility for

ALL students. Currently, the non-ambulatory (7%) children cannot safely access the M.E.S. Pathways to Exploration System. For example, the trail to the pond area has a dangerous slope and various natural hazards that prevent accessibility by wheelchairs or walkers. With the RREV funding, the M.E.S. Pathway to Exploration Trails System would offer physical activity for ALL children. According to the 2019 Maine Integrated Health Survey, today's indoor children are less physically fit, less able to concentrate, and less able to relate to their peers. M.E.S. is not so unlike other elementary schools with an obesity issue, 15% of kindergarteners and 19% of 3rd graders are not just overweight but meet the definition of obesity. The trails system would offer outdoor exercise through walking and exploring nature. Based on the response we got from students during our SSA, students would be more inclined to look at these experiences as fun rather than a boring Phys. Ed. Class. These experiences also led to improved self regulation skills in some students. For example one student's ability to self regulate increased 24% outside as noted in his behavior plan during SSA. Another student showed 32% less aggression outside than exhibited in a classroom setting. Through a collaboration with Madison Area Memorial High School Sustainable Agriculture Program students social emotional needs will be addressed. Madison is in rural Maine and there is no Big Brother/Sister programs, but pairing high school students with elementary students through identifying plant varieties, physical exercise, walking observations, planting flowers and veggies, etc.. would offer the opportunity to create those kinds of bonds that inner city programs offer to address the same needs. Lastly, not only will these trails be used for academic purposes, but as a place for teachers, students and families to foster community relationships. Within the past two years (in pilot project form), students and their parents/guardians participated in a storybook walk using part of the M.E.S. Pathways to Exploration Trail that was accessible. The RREV funding would make the difference to allow accessibility to ALL students and their families, and for more projects like the storybook walk to happen.

Our innovative ideas include the following objectives:

- Reconstruct the outdoor learning trail system to be ADA handicap accessible. (widening path, providing covered learning area, observation deck with appropriate railing, and bridges.
- Connect our trail to the wetland area for ALL students to have accessibility.
- Collaborate with resources such as an engineer/ engineer firm, physical therapist as well as an occupational therapist to outline a schematic of trail accessibility to align with ADA requirements.
- Continue using the M.E.S Pathways to Exploration Trail System to promote physical activity for ALL students
- Create a Kiosk for nature identification purposes as well as signage for trees, plants and wildlife
- Establish various nature stations/experiences for exploratory learning in the areas of art, music, PE, computer library, and remediation services (Title 1) for ALL students.
- Continue using the outdoor classroom space for literacy and nature connections and observations for ALL students.
- Continue using the outdoor classroom space for life science purposes such as plant and animal identification for ALL students.

The M.E.S Pathways to Exploration Trail System will increase the physical, social and emotional health of our students. According to the Maine Integrated Health 2019 Survey, the percentage of students who were overweight (above the 85th percentile for body mass index, by age and sex as measured by height/weight) in:

- Kindergarten was 15% percent of our student population and for third grade 19% percent of our student population falls within the category.
- According to the Maine Integrated Health 2019 Survey, the the percentage of students who were obese (above the 85th percentile for body mass index, by age and sex as measured by height/weight) in Kindergarten was 34% percent and for third grade was 19% percent of our student population falls within the category. Lastly, according to the Maine Integrated Health 2019 Survey, the the percentage of students who were overweight or obese (above the 85th percentile for body mass index, by age and sex as measured by height/weight) in Kindergarten 34% percent of our student population falls within this category and in third grade 42% percent of our student population falls within the category.
- In order to address the needs of the overweight and obese students population. The Madison Elementary RREV Design team has established the M.E.S Pathways to Exploration Trail System located at Madison Elementary School.

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 Els, 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.

All Students in PreK - 4th grade including non-ambulatory will benefit from the Pathways to EXploration Trail system.

Non-Ambulatory students

7% of our student population is non-ambulatory. At recess, peers often ask why they cannot join us on the trail. This trail system would offer equity for all.

Students in need of improved physical fitness

According to the Maine Integrated Health 2019 Survey, the percentage of students who were overweight (above the 85th percentile for body mass index, by age and sex as measured by height/weight) in:

- Kindergarten was 15% percent of our student population and for third grade 19% percent of our student population falls within the category.
- According to the Maine Integrated Health 2019 Survey, the the percentage of students who were obese (above the 85th percentile for body mass index, by age and sex as measured by height/weight) in Kindergarten was 34% percent and for third grade was 19% percent of our student population falls within the category. Lastly, according to the Maine Integrated Health 2019 Survey, the the percentage of students who were overweight or obese (above the 85th percentile for body mass index, by age

and sex as measured by height/weight) in Kindergarten 34% percent of our student population falls within this category and in third grade 42% percent of our student population falls within the category.

In order to address the needs of the overweight and obese students, the trail system would offer them opportunities for physical activity year round outside in a natural environment.

Students who would benefit from social emotional growth

This past summer, Outdoor experiences led to improved self regulation skills in some students. For example one student's ability to self regulate increased 24% outside as noted in his behavior plan during SSA. Another student showed 32% less aggression outside than exhibited in a classroom setting.

This natural environment is also conducive to meeting the social emotional needs of students who have been trapped inside during the Covid Pandemic. We anticipate that trail use will benefit 100% of the students socially and emotionally in the coming years. According to Children & Nature Network, "Time in nature helps children and families cope with adversity and achieve resilience, recovery and regulation."

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.

The three parts of the M.E.S Pathways to Exploration Trail System

Part One: Planning to Achieve

- a. Establish the Madison Elementary RREV Design team and conduct feasibility audit on the realities of the M.E.S Pathways to Exploration Trail System
- b. Determine and outline the actual land parcel associated with the MES land trail area (Town Deed of Ownership, Map of Land, Physical markers of the land,)
- c. Research the requirements needed to make our trail align to meet (ADA) handicapped accessible requirements.
- d. Contract an engineer and forrester to identify services and hazards to address in (ADA) trail development.
- e. Contact the town of Madison for coding enforcement and wetland laws and regulations.
- f. Connect with MES personnel PT/OT to confirm ADA requirement for identified student population MSAD 59 PT Lisa Miller OT Crystal Siren PT
- g. Create a schematic (scale drawing) of the trail system with additional natural & physical elements such as pond/ wetland area, open natural spaces, outdoor gazebo/classroom learning space, dock area, outdoor seating. signage for nature identification fauna / flora.
- h. Create a blueprint of the outdoor learning area gazebo (Maine Cabin Masters Ryan Elderidge)
- i. Survey MSAD 59 staff of ways to incorporate PE, Art, Music, Library & Title Services as part of the outdoor learning experience.

- j. Generate a list of technology and apps that help support identification of fauna and flora on the M.E.S Pathways to Exploration Trail System.
- k. Construct a budget of services and supplies needed to develop the M.E.S Pathways to Exploration Trail System.
- l. Generate a list of resources with businesses/ people that address and deliver contractual groundwork aligned to ADA specifications(Peters Construction/ Bess Ecavacation/ Maine Cabin Masters)
- m. Develop a metric of performance (data log of elementary usage, data log of behavioral referrals while participating in M.E.S Pathways to Exploration Trail System
- n. Collect bids on the services needed to construct the M.E.S Pathways to Exploration Trail (Earthworks section)
- o. Generate a timeline of realistic benchmarks to align with contractors schedules and availability of materials/services.
- p. Collect quotes for technology and preload the technology with Fauna/Flora apps (eg. I naturalist SEEK App) Bird Merlin App)
- q. Begin earthwork of trails system, establish ADA trail width and slope, surface of trail, clearcutting of trail, erosion prevention around wetlands
- r. Survey the MES students and staff as to what they would like as part of the M.E.S Pathways to Exploration Trail System and correlate results.
- s. Collect bids on the services needed to enhance the M.E.S Pathways to Exploration Trail (Physical structures section)
- t. Implement and construct physical/ natural features to the trail system to support exploratory learning in the areas of art, music, PE, computer library and remediation services (Title 1) for all students.
- u. Outline possible elementary curriculum connections to outdoor learning experiences

Part Two Meet the Need

Currently the Trails System at MES is limited to students without handicapping disabilities and only serves a small collection of hands-on activities. The improved system would build capacity to meet the needs of all students.

Our goals for the new innovation are as follows:

1. To increase(expand) the current trails system by eliminating barriers so all students can have access
2. To provide targeted wellness curriculum to support student wellbeing (social/emotional, mental health, and physical health)
3. To expand the SSA program with more outdoor activities and integrated curriculum
4. To form a partnership with the high school agriculture students to provide a mentoring system with the elementary students
5. To enhance opportunities the current project-based learning for all staff and students.
6. Present the various nature stations/experiences for exploratory learning in the areas of art, music, PE, computer(eg. PE Nature Obstacle Course, Upcycled Musical Wall, Art a landscape of native plants, dig for native clay harvesting, library story telling area, and remediation services (Title 1) for ALL students place to read among the trees.

In order to meet these goals the structure of the current Trail System would need to be completely overhauled.

Part Three Sustainability

- a. Communicate Madison Elementary RREV Design team process with MSAD 59 school board and appropriate agencies/contractors/stakeholders.
- b. Collect data of trail usage, student attendance on scheduled trail days, office behavioral referrals during trail exploratory time.
- c. Coordinate off season maintenance plan with town of Madison & MSAD 59 Maintenance Dept.
- d. Solicit sponsorship of local businesses to “sponsor” sections of the M.E.S Pathways to Exploration Trail System.
- e. Frequently survey the Madison community on their experiences with M.E.S Pathways to Exploration Trail System and make revisions based on suggested recommendations.

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.	Establish Madison Elementary RREV Design team and conduct feasibility audit on the realities of the M.E.S Pathways to Exploration Trail System	Outline three step process as described above	P	Spring/Summer 2022	Jen Swain/ Scott Mitchell Cristina Sirois/Kathy Bertini?Bonnie Levesque
2.	Determine the actual land parcel involved in M.E.S Pathways to Exploration Trail		P	Spring 2022	Madison Elementary RREV Design team
3.	Research the requirements needed to make our trail align to meet (ADA) handicapped accessible requirements.		p	Spring 2022	Cristina Sirois
4.	Contact town of Madison for coding enforcement and		P	Spring 2022	Scott Mitchell/ Chris LeBlanc

	wetland laws and regulations				
5.	Survey the MES students and staff as to what they would like as part of the M.E.S Pathways to Exploration Trail System. Survey Madison community through Principal newsletter and correlate results	n	P	Spring 2022	Jen Swain Scott Mitchell MES Staff MES Students
6.	Create a schematic (scale drawing) of the trail system with additional natural & physical elements such as pond/ wetland area, open natural spaces, outdoor gazebo/classroom learning space, dock area, outdoor seating. signage for nature identification fauna / flora, electives areas PE, Music Art, Library, Computer.		P	Spring/Summer 2022	Ashlee Clough (MHS student) MES Students
7.	Survey MSAD 59 staff of ways to incorporate PE, Art, Music, Library & Title Services as part of the outdoor learning experience.		P	Spring 2022	Jen Swain/Cristina Sirois MES Instructional Specialists
8.	Construct a budget of services and supplies needed to develop the M.E.S Pathways to Exploration Trail System		P	Summer/Fall 2022	Madison Elementary RREV Design team

9.	Connect with the Madison High School Sustainable Agriculture Program to assist in the identification of fauna and flora in the M.E.S. Pathways to Exploration Trail System and set up consultation of services needed and planting of native gardens.		P	Fall 2022 - Summer 2023	Madison Elementary RREV Design team
10	Generate a list of resources with businesses/ people that address and deliver contractual groundwork, identification and outdoor learning space construction projects aligned to ADA specs (Peters Construction/ Bess Excavation/ Maine Cabin Masters)			Fall 2022 - Spring 2023	Madison Elementary RREV Design Team
11	Develop a metric of performance - data log of elementary usage, data log of behavioral referrals while participating in M.E.S Pathways to Exploration Trail System		P	Spring/ Summer2023	Madison Elementary RREV Design team
12	Collect bids on the services needed to construct the M.E.S Pathways to Exploration Trail (Earthworks portion)		P	Spring Summer Fall 2022	Madison Elementary RREV Design team MSAD 59 Maintenance Dept

13	Generate a timeline of realistic benchmarks to align with contractors schedules and availability of materials		P	Fall/winter 2022	Madison Elementary RREV Design team MSAD Maintenance Dept
14	Collect quotes for technology and preload the technology with Fauna/Flora apps (eg. I Naturalist SEEK App & Bird Merlin App)		I	Fall/winter 2022 Spring 2023	Madison Elementary RREV Design team MSAD 59 Maintenance Dept
15	Begin earthwork of trails system, establish ADA trail width and slope, surface of trail, clearcutting of trail, erosion prevention around wetlands		I	Fall/Winter 2022	Contracted Services MSAD 59 Maintenance Dept
16	Present various nature stations/experiences for exploratory learning in the areas of art, music, PE, computer(eg. PE Nature Obstacle Course, Upcycled Musical Wall, Art Garden to MES community and make revisions based on input		I	Spring 2023	Madison Elementary RREV Design team MES staff
17	Collect bids on the services needed to support the M.E.S Pathways to Exploration Trail Experience (Physical structures sections eg. Outdoor Learning center. Observation platform, obstacle course)		I	Spring 2022 Summer 2022 Spring 2023	

18	Implement and construct physical/ natural features to trail system to support exploratory learning in the areas of art, music, PE, computer(eg. PE Nature Obstacle Course, Upcycled Musical Wall, ArtGarden Library storytelling area,and remediation services (Title 1) for ALL students		I	Spring 2023 Summer 2023	
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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).

Within the first 6 months of the project we expect the trail expansion and ADA accessibility will be complete. The trail system will be accessible for ALL students, staff and families (non-ambulatory included). Students will have the opportunity to engage in natural outdoor settings through physical activity (addressing obesity), integrated curriculum and social emotional activities and partnerships.

After one year, 100% of the elementary school students will have experienced physical activity on the trail systems (obesity). At least 80% of the students will have been involved in one or more outdoor academic experiences (non-ambulatory) and have become involved in a mentor/mentee program through the partnership with the high school agriculture program (social emotional).

After the RREV award is gone the district and community will support the trail system. This will include staff within the program, supplies and maintenance of the trails.

- 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	100% accessibility for ALL students of the M.E.S Pathways to Exploration Trail System. Data(s) type: Attendance logs & Observations of all students engaged.	I/S	Ongoing	MES Staff Maine Adaptive Outdoors Education
3 2	Daily outdoor physical activity time. Data(s) type: Teacher Testimonials & Daily Attendance logs of outdoor time	B/S	MES trimester data record	MES Staff
3.	Child's self awareness and confidence. Data(s) type: Teacher observation of student behavior	S	Observations	MES Staff
4.	Students' overall environmental awareness & stewardship. Data(s) type: Student narratives/journals on ways to help impact nature	S	MES trimester data log Observation of Earth stewardship	MES Staff
5	Increase in the percentage of students who are at a healthy weight Data(s) type: (K and 3rd Grade)Maine Integrated Health Survey (2023)	S	2023 Survey	Maine Integrated Health Survey (2019) MSAD 59 Prek /K registration
6.	MSAD 59 families who access M.E.S Pathways to Exploration Trail System beyond traditional school hours. Data type: Attendance logs of outdoor time & photos of events such as story walks, testimonials from participants	S	Attendance	MES staff
7.	Attitudinal survey of MSAD 59 experiences with outdoor learning experiences	S	Fall & Spring	MES staff

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**.

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

The system changes to implement M.E.S Pathways to Exploration Trail System consulted with MSAD 59 insurance and liability policies regarding outdoor learning experiences. The instructional changes would be to continue to build capacity in MSAD 59 professional development to the correlations between outdoor learning and the impact on engagement for our students. Also this wooded trail area serves a dual purpose for a natural evacuation area and students are less likely to be anxious going to a familiar area. For the maintenance and upkeep of the M.E.S Pathways to Exploration Trail System will be built into the MSAD 59 school budget. As the trail system evolves, presentations will be given to the MSAD 59 school board about the trail progress and impact on student engagement. There will be a special spot that highlights the Trails System on the District webpage. Parent nights will be organized to share the trail system. Neighboring districts will be invited to make use of the system. Presentations at conferences to share our creative ideas will be encouraged and the newspaper will be contacted to make the public aware of our accomplishments and to support for sustainability.

- D. 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.

The original application was revised numerous times to meet the needs of the application readers. Hours were spent with rewrites, surveying staff and students (in our possession), getting permits, meeting with contractors, presenting to peers and the school board. The initial plan was for accessibility for all. ADA requirements came into play which altered the design. Through surveys done with staff, conversations with community members, and presentations to the school board the committee realized the trail system could address several other needs. The issue with obesity (2019 survey) seemed to be a natural fit with the ability to have a four season outdoor classroom. The social emotional concerns exaggerated by seclusion during COVID offered yet another challenge the trail System could address through a partnership with the high school agriculture program.

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.

List of M.E.S Pathways to Exploration Trail System Expenses

Contractual Earthwork Services (including tree clear cutting path & stump removal, chipping, rubbish removal)

Rental of earthwork equipment

Construction supplies/materials (crushed stone) for MES trial to be ADA accessible

Supplies for erosion and wetland protection (silkfencing etc)

Total: \$65,000

Contracted carpentry services for ADA outdoor learning facility

Purchase or construction of ADA outdoor classroom/gazebo/dock

Purchase of ADA deck and ramp for wetland area

Purchase of ADA benches

Purchase of signage for fauna & flora identification

Total: \$30,000

Staffing costs

M.E.S Pathways to Exploration Trail System Administrative Costs(compensation for planning, implementation and communication services) MSAD staff

Consultation services for MSAD59 Sustainable Agriculture Program

Total: \$5,000

Grand Total: \$100,000