

An Outdoor Learning Network (ELLMS) as a Pandemic Response

When Pandemic Strikes: In What Ways Has a State-wide Residential Environmental Education Network Positioned Itself and Others During a System-wide Educational Disruption to Meet the Current Challenges

Report of the Environmental Living and Learning for Maine Students (ELLMS) Network

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Introduction

The Pandemic

The Covid-19 pandemic poses once-in-a-generation challenges to education, the environment, economics, and equity. During February and March of 2020 the World Health Organization (WHO) took the rare step to recommend a non-pharmaceutical option to mitigate the pandemic—closing schools (Cauchemez et al., 2009). Implementing school closures has rapidly reshaped the structure of education (Tam & El-Azar, 2020), and created a tremendous challenge for environmental education providers that commonly partner with schools, like the collaborators in the ELLMS network.

A new structure of education emerged quickly and dramatically, in which teachers, administrators, and education service providers had to adapt to in real-time (UNESCO, 2020). As students were sent home, teachers and administrators worked frantically to maintain community connections; monitor the physical, social, and emotional health of their students; and create online and remote learning environments (Markus, 2020). Each school, district, and state pivoted to this new reality in vastly different ways, but the entire educational system experienced a seismic level disruption due to the pandemic (Collins & Steele, 2020). Educators are having to navigate new policies, new modalities of teaching, new expectations and learning goals, and new community-led priorities (Markus, 2020). This new structure affects every part of the

educational system including environmental education, educators must revise the moral and social structures of their work during this unprecedented time in educational history.

From the experience of ELLMS centers, environmental education in elementary schools has been particularly hard hit during the global health pandemic. As schools abruptly shifted to remote learning, anecdotal evidence indicates that science, environmental education, the arts, and place-based education often took a back seat. It is our conjecture that the structural challenges already facing environmental education in Maine schools became magnified and starkly apparent during the pandemic.

The ELLMS centers now face deep and broad financial challenges due to lost revenue from all programs in 2020 that make moving forward uncertain. Staggering deficits reaching a million dollars or more per center by 2021 have to be financed. All the centers are having to lay off, furlough, and restructure positions in order to try to meet this new reality; a reality that has no concrete timeline or clear course forward. The ELLMS centers are providing programming in new and innovative ways with little to no funding, a shrinking workforce, and an uncertain road ahead.

Pandemic impacts are exacerbated by environmental degradation (Sommer, 2020) and socioeconomic disparities, thus ELLMS' role in educating communities about the environment and environmental justice are topics more relevant than ever.

The pandemic challenge highlights the need for the type of education that ELLMS centers provide—experiential and systems education that teaches resiliency, including:

- ***Education of the whole child*** - Including social and emotional learning in safe outdoor learning spaces
- ***Environmental awareness and action*** - Including climate change youth mentorship and modeling a carbon neutral future
- ***Economic development*** - Local food systems and a new Green Jobs Training for Millennials & Generation Z
- ***Equity and inclusion*** - Helping to support and train communities to be more just, equitable, inclusive, and anti-racist

ELLMS is Meeting the Challenge

Although ELLMS centers are fiscally challenged in previously unimaginable ways, ELLMS as a network is addressing this system-wide challenge by establishing an “ELLMS is Essential” campaign that clarifies the four strategies of action that will benefit the communities served, now and into the future.

- Establish new relevance to schools
- Engage politically
- Conduct research and evaluation
- Seek funding for school partnerships

These four areas interconnect in reciprocal and iterative ways in order to provide a model of resilience in action. ELLMS is working towards strengthening the network’s resiliency to not only

survive but thrive long-term. This plan is necessary in order to maintain program and services through the pandemic, until a return to widespread fee-based programming. It is important to maintain environmental education and resiliency training across Maine schools so communities can and will respond to future catastrophic events in ways that are scientifically literate, resiliency-based, and that meet the social and emotional needs of the community.

Establish new relevance to schools.

Although ELLMS has always prioritized building deep relationships with school partners, the pandemic has made these relationships even more valuable. It has emphasized the need for ELLMS to grow in ways that meet the mission —"to promote best-in-class residential environmental learning in Maine for all students, create model community-based education partnerships, and contribute to statewide initiatives" (Revised January, 2018).

Since 2011, ELLMS has raised over \$2.6 million from foundations and individuals to enable over 186 schools around Maine and over 12,000 students to ELLMS' five environmental learning centers for overnight programs spanning three or more days.

But this is not enough. Not every student in Maine has had a residential environmental education experience like what is possible with ELLMS, where the focus is on resiliency and sustainability. And, for those that have had one experience, we know additional on-going experiences are far better to support learning change and progressions (Duschl, Maeng, &

Sezen, 2011). To do this on-going work ELLMS must continue and deepen the partnerships, relationships, and direct programming for our Maine schools most in need of these experiences.

This kind of educational experience is more necessary than ever. Tam and El-Azar (2020), writing for the World Economic Forum, said it best when they said,

The rapid spread of COVID-19 has demonstrated the importance of building resilience to face various threats, from pandemic disease to extremist violence to climate insecurity, and even, yes, rapid technological change. The pandemic is also an opportunity to remind ourselves of the skills students need in this unpredictable world such as informed decision making, creative problem solving, and perhaps above all, adaptability. To ensure those skills remain a priority for all students, resilience must be built into our educational systems as well.

ELLMS' relevancy is even more apparent today. ELLMS provides students, teachers, and schools with resources and direct modeling of how to teach and encourage these types of skills and a way of thinking that can negotiate, critique, and consider such complex and consequential issues. ELLMS assists our school communities by modeling, teaching, and supporting adaptability. These kinds of ways of thinking are embedded in ELLMS' programming, but it is difficult for ELLMS to fund this programming in today's pandemic environment.

"We have to reconceptualize the whole job of child development and education, and construct systems that meet children where they are and give them what they need, both inside and

outside of school, in order for all of them to have a genuine opportunity to be successful” (Mineo, 2020). To do this, ELLMS has pivoted programming in a number of ways to make sure they are still relevant, effective, and useful even if delivered through different modalities.

- Providing "Nature Nuggets": short online nature activity videos for parents and teachers (Sarnacki, 2020)
- Working remotely with Whole Schools Whole Communities students and teachers
- Significant contribution to a web platform (“Community Learning for ME” (Nature Based Education Collaborative, 2020))
- Providing teacher development and learning experiences around remote environmental education and place-based learning
- Providing space and facilitation for teacher and administrators to gather and plan

Engage Politically

Part of how ELLMS has continued to model and practice resiliency is to stay engaged politically.

The network model has enabled ELLMS to be part of other networks that champion these relevant and valuable residential environmental education experiences for our Maine youth.

The networks and associations include, a) Maine Environmental Education Association, b) North American Association of Environmental Education, c) Association of Nature Center Administrators, Residential Environmental Learning Centers, d) Maine West, e) Downeast Conservation Network, f) Nature Based Education Collaborative (a spin-off network founded by ELLMS), g) Independent School Association of Northern New England (Association of Independent Schools in New England as of October 1), h) Maine Association of Independent Schools, i) American Camp Association (NE), j) Maine Summer Camps, k) Maine 4-H, and l)

Maine Cooperative Extension. Linking networks leverages political voice and choice of those who know the environmental education landscape the best— those that are leaders in the field.

One of those networks mentioned, the Nature Based Education Collaborative (NBEC) was co-founded by ELLMS for the express purpose of collecting and magnifying the voices across the state interested in and connected to providing equitable, statewide access to environmental education. The NBEC network has a wider focus than the residential environmental education focus of ELLMS and works to lobby for political, policy, and funding decisions to better meet the needs of the environmental education field across the state of Maine. This network was an outgrowth of ELLMS and was able to get the momentum necessary to do this work because of the direct, indirect, and matched time, resources, and funding from the ELLMS network. In only a short time, the NBEC has gone on to lead state-wide surveys, held listening sessions, and started convening a network-of-networks to help understand the state of environmental education across Maine in order to move to action in effective ways.

The ELLMS members not only leverage their voice through the networks they lead and link, but they also leverage their political voice through leadership across the state, throughout the region, and across the nation. ELLMS' center directors and staff are called on by those making decisions about planning, programming, and funding to attest to what they are experiencing; their accounting of the field of environmental education is highly sought after due to their long time leadership within the field. An example of the political voice of ELLMS during this challenging time can be seen in the recent request by one of the ELLMS center executive

directors presented at the Environmental Funders Network meeting in June, 2020 letting funders know about the state of Maine's environmental education field at this time during the pandemic. The ELLMS centers are the sought after voices of what is happening across Maine's environmental education landscape, and thus, their deep concern at this time should be highly regarded and considered. Although ELLMS is desperately trying to pivot quickly and effectively to a new state of the environmental education field, the alarm they are trying to send to those in power to make decisions to alter the currently distressing trajectory of environmental education across the state is an alarm that should be grasped and appreciated for the dire warning that it is.

Research. ELLMS is aware that they need to prove their relevance with data and evaluation of their approach. Although ELLMS has previously been part of research and evaluation measures, those attempts have not precured the depth and rigor of data ELLMS desires. Therefore, to address that need ELLMS has partnered with a social science researcher at the University of Maine, as well as the Maine Mathematics and Science Association to set up research practices that will not only collect a snap shot of ELLMS' effectiveness meeting the resiliency goals they seek to provide through their residential educational experiences, they also are working to set up embedded data collection protocols so long-term system-change data can be collected and analyzed at a future date. The connection with the University of Maine has already put in place multiple protocols such that data from ELLMS center participants can be collected in ways that are not only educational for those participants, but provide the kind of authentic reflective feedback that ELLMS can use to determine its effectiveness. The

administrative and programming staff have worked with UMaine's researcher, Dr. Vanessa Klein, to set up rigorous and useful on-going data collection protocols. Although data collection has stopped for the moment, when in-person programming resumes there will be activities in place that will not only support deeper educational experiences of the participants but will also provide data for ELLMS to research and evaluate their process and programming.

In order to also get a research-based snap-shot of whether ELLMS is indeed helping their communities to think and act with more resiliency and sustainability ELLMS has also partnered with the Maine Mathematics and Science Alliance (MMSA) to get a retrospective accounting of how the ELLMS experience affected participants' resiliency, systems thinking, and sustainability during this time. ELLMS and MMSA will be embarking on a project to reach out to a wide variety of past participants to hear their thoughts and reflections on their ELLMS experience and determine what ways the ELLMS experience afforded their functioning and processing of the pandemic—an experience that is the epitome of systems, science, and community-change coming together in one phenomena. MMSA is providing the research knowledge and skills to determine the methodology and analysis while ELLMS staff will be providing the data collection for this research project. ELLMS is interested in researching their process and determining in what ways does the data support their current programming, and in what ways might it need to be tweaked to actually meet the resiliency-based educational goals of an ELLMS residential environmental education experience. ELLMS' relevancy will, in time, be research-based.

Funding. It is essential that ELLMS not only secure bridge funding to stay solvent through this pandemic in order to continue providing effective environmental education remotely and in-person when that becomes viable again, but ELLMS must also simultaneously plan to thrive after this pandemic so that it can meet the mission described earlier. The importance of environmental education is more important now than ever before, and for ELLMS to stay relevant and effective they must plan to thrive now and into an uncertain future. To do this ELLMS is continuing cultivation and engagement with large scale funders (foundations, corporations, and individuals) to fund the *ELLMS Is Essential* Campaign for at least the next 2-3 years.

For example, ELLMS is working with NBEC to lobby for state-wide legislation that will codify long-term funding to provide the youth of Maine with effective environmental education experiences despite the socioeconomic background of the youth. Maine youth should be provided with experiences that teach them about resiliency, sustainability, increase their science literacy, provide them with connection to the natural history heritage of the state of Maine, as well as provide them with experiences that encourage their participation in future careers related to Science, Technology, Engineering, Math (STEM), and the natural resources of Maine. To provide these experiences means ELLMS must be financially stable enough to provide programming, resources, trainings, and support to make these experiences happen in effective and on-going ways.

Another example of ELLMS trying to pivot in ways that are more relevant and effective to meet today's funding needs, is ELLMS' on-going effort to set ELLMS up to ultimately provide a sizable private fund that would insure that the ELLMS mission and vision are met. To do this requires strategic planning including determining who will hold and disperse funds, governance and structures that will be rigorous and flexible enough to meet a growing need, and coordination and oversight of the funds. Despite the pandemic, ELLMS is in process to meet these strategic needs.

Summary

Since the inception of ELLMS in 2011, ELLMS has provided over 12,000 students with residential environmental education experiences that have helped to build the resiliency, sustainability, and science-literacy of Maine's youth. ELLMS has leveraged their own network and additional network-to-network connections to meet environmental education needs across the state. ELLMS has made collaborative partnerships to research their process and programming, ensuring their experiences are of the highest rigor and meeting the resiliency-related educational goals they have set out to achieve. ELLMS has begun strategic planning steps to ensure that funding, funding which is critical to providing these residential environmental educational experiences, will be viable in the long-term. ELLMS continues to do this work even during the midst of a global pandemic. ELLMS is pivoting in ways to meet the current needs of the youth, schools, and communities while also utilizing this tremendous challenge to once again try to communicate the immediate relevancy of this kind of education. This global pandemic has surpassed all previously known pandemics (World Health

Organization, 2020), has caused tremendous psychological trauma (Sood, 2020), has emphasized the role of environmental education in combating future pandemics (Sommer, 2020), and has also underscored the role that community resources like ELLMS plays in social and emotional recovery after the trauma of the pandemic (Anguelovski, 2013).

ELLMS can be part of resiliently managing the pandemic and eventual recovery of the pandemic by providing physical place and space for schools and community to come together safely while learning about and building resiliency, sustainability, and science-literacy; an essential asset for school districts' Covid-19 response (Denks, 2020). ELLMS centers can be outdoor safe places that meet social distancing requirements and provide knowledgeable staff that can support the school's need to provide relevant, responsive, and place-based education. Community resources, like the ELLMS non-profit centers, can work with schools in ways that connect the relevancy of the environmental education being provided in an effective way and at a moment in which the need could not be greater or the lessons more timely (Metcalf, 2020).

The pandemic has created an eco-psychological trauma felt by every member of society, and ELLMS plays a role in fostering a way of moving forward that addresses the immediate need of addressing that trauma as well as building in long-term resiliency to future challenges (Buzzell & Chalquist, 2015). ELLMS has already been providing programming that addresses the social and emotional needs of their students and their communities, now is the time to utilize those skills and provide trauma-informed programming service delivery in partnership with the schools (Chafouleas, Johnson, Overstreet, & Santos, 2016). ELLMS provides an ecosocial approach that connects the current social needs of the people and an understanding of the complex

ecosystem in which they live; a profound and necessary connection to understand and a connection that can help process the trauma that has occurred (Norton, 2012). The mental-health needs caused because of the Covid-19 pandemic are staggering and ELLMS' programming can help to meet those critical mental-health needs as schools plan for fall programming options (Pfefferbaum & North, 2020).

ELLMS educates with resiliency always at the forefront of their programming; keeping resiliency in mind will help address the systemic challenges our Earth is currently facing including future pandemics and global climate change (Dubois & Krasny, 2016). There is a way forward for Maine's youth post-disturbance that utilizes the impacts of environmental stewardship framed through resiliency that effectively connects the social learning that happens during residential environmental educational experiences to the science and sustainability programming that is being taught during those social experiences (Smith, DuBois, & Krasny, 2016); experiences like those that happen at an ELLMS center. It is not beneficial for students' academic, mental health, or physical needs to be subjected to an education environment that forces them into rows of plastic-protected desks (Strauss, 2020). Instead, ELLMS' assets of physical space, staff, and knowledge should be leveraged to provide an educational experience that meets their whole-person needs.

However, to continue to provide eco socially-connected remote programming now, and in-person programming in the future, ELLMS needs to continue to communicate their essential relevance at this time and for the long-term. This communication must produce outcomes that

provide additional political and funding resources to make these resources a reality for our Maine youth, and thus our Maine community. ELLMS came together as a network because they found they could accomplish more together than they could separately. ELLMS calls on that knowledge again to strengthen this network, and others, so that the valuable and lofty goals of providing all Maine students with best-in-class residential environmental learning experiences, continuing to create model community-based education partnerships, and realize statewide initiatives to ensure this work in perpetuity is achieved. ELLMS calls on the power and leverage of existing funding networks, political networks, and educational networks to achieve the goals laid out in this “ELLMS is essential” campaign.

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