

About Us

An Introduction to the POLCA and Climate Change Environmental Education



The **Climate Change Environmental Education POLCA** (Project-based Online Learning Community Alliance) was formed in the spring of 2013 to engage in a professional learning experiment. As part of the EE Capacity¹ project, we wanted to see if there was a group of 25 environmental educators who

- shared a sense of urgency about the need to expand efforts in the broader environmental education community to address climate change and wanted to work collaboratively to create one or more product(s) to support such efforts, and
- wanted to engage in professional discussions as a means of advancing their own skills and generating new insights and understandings.

By climate change environmental education (CCEE), we mean the full array of interdisciplinary learning opportunities that people of all ages need to develop the competencies, dispositions and knowledge to address climate change. This array includes an understanding of the socio-political and economic considerations; the scientific basis; and the communication, collaborative problem-solving and analytical skills needed to generate and implement feasible solutions.

We advertised this opportunity via NAAEE, EECapacity, and other listservs, and were overwhelmed with 94 applications. From those, we selected a diverse set of 25 formal and informal educators who committed themselves to investing at least 4 hours per month with colleagues to address our dual challenges. From April through November 2013, this group used e-mails, conference calls, archived recordings of those calls, and shared documents on Google Drive to reach consensus on:

- a shared view of the product we would create, and
- a process for creating the product in the limited time available to us.

¹EECapacity – Expanding Capacity in Environmental Education – is a multi-year partnership of the Cornell University Civic Ecology Lab and North American Association for Environmental Education (NAAEE) supported with funding from U.S. Environmental Protection Agency to improve environmental quality through diversifying and strengthening the field of Environmental Education (EE). EECap's overall strategy for building capacity within EE is to link an emerging cadre of diverse EE professionals working in urban environmental stewardship, community, and environmental justice organizations, with more established environmental educators who are active in nationwide professional and government networks.

We aimed to create a fairly unique product rather than wasting our time “reinventing the wheel.” And we decided that we would craft a product that:

- could be posted on a website;
- would use and refer to accurate, reliable sources;
- would build on the NAAEE Guidelines for Excellence, the most recent education standards, and the Framework for Assessing Environmental Literacy.

We wanted to enable more people who are not currently including climate change education in their curricula and programs to do so, and felt we would serve that goal with a product that would:

1. Provide teachers and principals with strategies and tools for teaching this controversial issue – including the importance and ways to facilitate complex discussions about climate change, and the rationale for including climate change education in courses across content areas and programs based on standards (e.g., Common Core, NGSS, and new social studies standards).
2. Use an inquiry-based and dialogue-centered approach rather than a didactic, content specific orientation. We knew that our product would depend on a solid base of content from science and social studies.
3. Be relevant for environmental educators and teachers of language arts, social studies, science, and sustainability. We wanted the product to be usable by educators from a variety of disciplines/subjects.
4. Emphasize the need for systems thinking and systems learning.
5. Focus on multidisciplinary global and local phenomenon/processes and emphasize local action.
6. Emphasize some specific exemplary materials and strategies rather than attempting to point educators to all available materials and strategies for climate change education.
7. Be aimed at formal and informal educators and professional development providers rather than being directly for students. We do expect that educators will use the product to enable them to better serve and engage learners.

This website contains our product – the result of our Project-based Online Learning Community Alliance (POLCA) and the nine different collaborative working groups that took on each of the specific tasks we agreed to. As you look at the whole or at a specific part that is of particular interest to you, we hope you’ll find something that inspires you, makes your work easier, or enables you to find ways to provide relevant learning experiences to the learners you work with.

On our Home Page following this introduction, you’ll find four major sections:

→ **Educators’ Needs:** The Rationale for our work and our Climate Change Education Needs Assessment Survey

→ **The Research:** A summary of the literature from research on how people learn, environmental psychology, and climate change concepts and suggested teaching/learning strategies for applying these research findings and theories

→ **Standards & Teaching Suggestions:** Analyses of **Common Core, Science,** and **Social Studies Standards** show where climate change fits in the curriculum and the kinds of discipline-focused practices that learners can use while investigating climate change. For specific standards, we've suggested **lessons and units** (cohesive sequences of learning opportunities appropriate for specific grade bands) that enable students to pursue performance expectations and content in the Next Generation Science Standards, Common Core, and standards for civics and government, social studies, and geography.

→ **Suggestions for Learner-Focused Inquiries:** Here we list "Essential Questions" for each grade band, suggest a template for use with groups of learners (from K to Gray), and give some examples of inquiries pursued by learners of different ages.

Those of us who have "danced together" in the Climate Change Education POLCA – who were, for the most part, strangers eight months ago – have been heartened by what we have been able to achieve by working together. In the coming months and years, we will spread the word about our product and encourage others to use it as we lead professional development webinars, workshops, and so forth, and will continue to conduct and publish research (e.g., additional analyses of our needs assessment findings and of the ways states are using national standards and frameworks in revising their social studies standards). And we will encourage future support for additional professional learning communities to pursue more professional development opportunities for informal educators, as well as the development of more resources and connections to enable social studies educators to engage learners in gaining the skills and knowledge necessary for addressing climate change.

We know that much more is needed to advance multidisciplinary climate change education. We hope that you will share our work with your colleagues and find others with whom you can collaborate to advance your climate change education efforts.

Amy B. Jolly, Climate Protection Campaign
Bethany Vosburg-Bluem, Otterbein University
Candace Lutzow-Felling, University of Virginia
Carrie Hawthorne, Roger Williams Park Zoo
Cheryl L. B. Manning, Jefferson County (CO) Schools
Christine Kelly, The Canadian Wildlife Federation
Christine Robertson, Earth Day Network
Christopher Johnson, Educational Consultant²
Clare Long, USDA Forest Service, White Mountain National Forest
Debbi Stone, The Florida Aquarium
Deborah Shiflett-Fitton, Cape Light Compact²
Janet Charnley, The Evergreen School (WA)
Jay Shuttleworth, Columbia University²
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Nette Pletcher, Association of Zoos and Aquariums (AZA)

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Simone Parker, Trigg County (KY) Schools

Susan Jane Gentile, Antioch University and Living Routes²

Ray Darville, Stephen F. Austin State University

Wyvette Williams, Kentucky State University³

Karen S. Hollweg, North American Association for Environmental Education (NAAEE)

Jose Marcos-Iga, Environmental Education Exchange⁴

²These people took on leadership roles, facilitating one of our nine working groups and representing their group's perspectives in conference calls designed to build cohesion into the final product.

³These two colleagues volunteered their expertise to enable us to complete our project, conducting analyses of our needs assessment data, and formatting our final text to create a professionally designed product, respectively.

⁴These two had the responsibilities of advertising, selecting, assembling, and facilitating the collaborative work of the Climate Change EE POLCA, and providing technical support, training in using our virtual tools, and coordination with the EECapacity Leadership Team, respectively.

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