

Climate Change Education: What Are We Hearing from Educators and Administrators?**May 3, 2023****Link to the recording:** <https://youtu.be/HRwqdSmZlyM>**eePRO post:** <https://eepro.naaee.org/learning/climate-change-education-what-are-we-hearing-educators-and-administrators>**Speakers:****Sarah Bodor, NAAEE's Director of Policy & Affiliate Relations****Lisa Dropkin, Edge Research****Pam Loeb, Edge Research****Highlights of the chat transcript:****Welcome and Introductions!**

- Debbie French: Debbie French, Wake Forest University
- Krysta Hougen-Ryall: Krysta Hougen-Ryall, NOAA Chesapeake Bay Office - Maryland
- Sarah Bodor (she/her) NAAEE: Hi Josh!!!!
- Ashleigh Boice: Ashleigh Boice, St. Johns Riverkeeper Education Director, zooming from Jacksonville, Florida.
- Marina Astin: Marina, Oregon Coast Aquarium
- Jennifer Bartlau: I forgot to add where I am, Southern California.
- Laura Branby: Hi! Laura Branby... Creek Connections, Allegheny College... watershed educator... mostly Pittsburgh area but all of western PA for our organization
- Madeleine Girgis: Hello! My name is Madeleine and I'm an outdoor educator and very-soon-to-be Masters graduate for Marine Conservation!
- Eileen Boekestein: Hi! Eileen Boekestein, Environmental Education Coordinator at Michigan Department of Environment, Great Lakes and Energy
- Özgül Keleş: Hello I am Özgül from Türkiye
- Delanie Bruce: Delanie, Bird Conservancy of the Rockies & from Scottsbluff, Nebraska!
- Jessica Khoury: Hey folks, Jessica Khoury here. Joining from Halifax (Mi'kmaki), Nova Scotia - Canada
- Emily Fano: Hello, Emily Fano, National Wildlife Federation, Resilient Schools Consortium (RiSC) program, and Climate & Resilience Education Task Force in New York
- JEROME NEPPEL: Jerry Neppel, Des Moines, Iowa
- Anne Umali, NAAEE: Hi, Anne, joining from Maryland, US 😊

- Marc LeFebre: Marc LeFebre (Association of Fish & Wildlife Agencies) joining from Austin, Texas
- Betty Olivolo: Betty O, NAAEE/Nat Start, Kittery, ME
- Amy Frame: Hello Everyone! Amy Frame from Ten Strands in California.
- Eileen Koury-Judkins: Eileen Koury-Judkins STEM Program Specialist at Girl Scouts of Eastern Massachusetts
- Sarah-Mae Nelson: Sarah-Mae Nelson Uni. of California, Agriculture and Natural Resources, UC Environmental Stewards, Climate Stewards Academic Coordinator - Rumsen Ohlone Land, Monterey, CA
- grace finocchiaro: Grace Finocchiaro, Conservation and Education Coordinator for the Saginaw Children's Zoo, Michigan
- Laurel Kruke: Hi, I'm Laurel, a PhD student in Education at University of Southern California, joining from LA
- Elaine OSullivan: Hello! Joining from New York City!
- Kendall Post: Kendall Post, Sprout Up, Palo Alto CA (Ohlone land)
- Maggie Favretti: Maggie Favretti from Mystic, CT, joining briefly from Buchanan MI (almost no internet)
- Emily Mallen: Hi! I'm Emily, with SEI in the San Francisco Bay Area!
- Laura Downey: Hi, Laura from Kansas, no not Dorothy 😊
- Shari Wilson: Shari Wilson, Project Central, Kansas City, Kansas USA
- Megan Annis: Hi! Megan Annis from Project Learning Tree...joining from the Sacramento, CA area :)
- Brekke Bounds: Brekke Bounds, Environmental Education Association of Illinois. Im calling in from my phone at Horner Park in Chicago!
- Celeste Royer: From California Central Coast, ancestral lands of the northern Chumash
- Lindsey Waugaman: Lindsey from PA, Mountain Watershed Association
- Karen Cowe: Hello everyone! Karen Cowe from Ten Strands in California.
- Jillian M'Barki: Hi all! Jillian M'Barki from Ten Strands. Joining from the East Bay in California.
- Melissa Wong: Hello all, Melissa from the Houston Zoo in Texas
- Eileen Boekestein: Hi Anne 😊
- Tamara Murray: Joining from the Central Coast in California
- Katarina Pittis: Katarina Pittis, Sprout Up, from Brooklyn NY (Lenape land)
- Elizabeth Soper: Hey Judy and Sarah! Liz (NWF) from Vermont
- Loren Sanchez: 🙋
- Sophie W: Hi! Sophie from Alabama

- Rebecca Thompson: Beck Thompson, Holden Forest & Gardens Cleveland, OH
- Jen Kretser: Hi all! Jen Kretser from The Wild Center - Adirondacks and Haudenosaunee Lands
- Emily Schaller: Emily, joining from Ann Arbor, Michigan.
- Eileen Boekestein: Hi Emily!!
- Julie Bernson: Julie Bernson from The Trustees, on the home of the Massachusett, Wampanoag, Nipmuc, and many other Indigenous tribes.
- Program Coordinator: Michelle, EEA-IL Program Coordinator joining from Central IL
- Michèle Andrews: Michele from just south of Ottawa in Ontario, Canada. On the beautiful St. Lawrence River, the lands of the Anishnabek, Huron-Wendat, HJaudenosaunee and Oneida peoples.
- Grace Charabati: Grace from Virginia / the NAAEE team 😊
- Sylvia Scharf: Sylvia Scharf from MIT's Environmental Solutions Initiative. Working remote from Massachusetts/Pawtucket land.
- Marc Rogoff: Marc Rogoff - NJ DEP
- Geoffrey Echemu: Hello everyone Geoffrey Echemu, Humane Initiative Uganda. Environment & climate change org
- Anne Umali, NAAEE: 😊
- Will Parish: Will Parish, Ten Strands. Coast Miwok
- Robin Madel: Hi All. Robin Madel from the Water Footprint Education Project.
- Estefanía Pihen: Hi all. Estefanía Pihen from Hahami Organization, Ventura CA.
- Cari Herndon: Cari Herndon, National Center for Science Education
- Siobhan Starrs: Siobhan Starrs, Smithsonian Nat History Museum
- Geoffrey Echemu: Thanks Judy, pleasure meeting you again.
- please contact me via egeofrey01@gmail.com have some info to share with you!!
- Geoffrey Echemu: thanks Judy!
- Siobhan Starrs: thanks Judy!
- Simpilo SYABWANTA: Simpilo Syabwanta from Zambia simpilo.syabwanta@gmail.com and +260976357530. A climate change educator and PhD student in Environmental Education.
- Simpilo SYABWANTA: Thank you for the Presentation
- Simpilo SYABWANTA: You are welcome
- karen hollweg: Hasn't Yale published what parents want for each Congressional District?
- Josh Bearman: I would be curious to know how these teacher & admin views are affected by geography

Report Review

- Judy Braus (she, her): Please feel free to put questions in the chat throughout the presentation! :-)
- Siobhan Starrs: I'm curious about the "scientists disagree" question. Why was that asked since there is scientific consensus that climate change is real and human-caused.
- Imani Malaika-Mehta: Question: Any stats on number actual parents complaining, not just what we think?
- Sarah Johnson: +1 to @Karen's comment above
- Josh Bearman: @Siobhan, isn't the disagreement more about the level of human vs. natural forcing, rather than the actuality of climate change?
- Michèle Andrews: I think you said this was conducted in the US - do you have plans to replicate the study in Canada?
- Sarah Johnson: <https://climatecommunication.yale.edu/visualizations-data/factsheets/>
- Debbie French: NPR published an article (2019) that showed most parents want CC to be taught.
- Imani Malaika-Mehta: @Josh & Siobhan: The disagreement is BOTH in conservative circles.
- Debbie French: <https://www.npr.org/2019/04/22/714262267/most-teachers-dont-teach-climate-change-4-in-5-parents-wish-they-did>
- Sylvia Scharf: @Siobhan, it seems that many of these questions are more about teacher's perceptions of what they should be teaching, or why, not necessarily the reality.
- Michèle Andrews: I think you said this is US based data - do you have plans to replicate this study in Canada?
- Sarah Johnson: Did you (and how) consider the Yale Climate Communications data <https://climatecommunication.yale.edu/visualizations-data/factsheets/>
- Siobhan Starrs: Thanks Sylvia. We avoid asking questions in forms that might reinforce misconceptions. There is agreement amongst 98% of scientists that human behaviors are the cause of climate change.
- Simpilo SYABWANTA: I love the context of Climate Change Education Policy. This is my main area of focus. How can we implement this in Africa particularly in Zambia.
- Imani Malaika-Mehta: If you teach data science, weather, and current events you really can't avoid the issue.

- Sylvia Scharf: @Siobhan, I agree - I wonder how it was actually phrased in the survey.
- Simpilo SYABWANTA: is there empirical evidence conducted by scientists to support the findings?

Parental Views

- Imani Malaika-Mehta: Are the opinions based on NGSS or other science standards?
- Imani Malaika-Mehta: I find LOTS of students who believe in climate change, but cannot tell you why!
- Josh Bearman: @Imani, teachers too
- Imani Malaika-Mehta: That's sad, Josh!
- Kathryn Hopkins: There seems to be a very large # of administrators that think climate change is too political to teach (more than teachers) but then there is a large gap in the opposite direction of the perception of whether climate change is actually being taught (more admins think it is then teachers). Am I reading that right?
- Siobhan Starrs: Did you also change from their wording which is "global warming" to "climate change?" We use their SASSY tool with visitors, students, and teachers and found that shift impactful on our data.
- Sarah Johnson: Rural and urban people? or just geographic reach in your sample?
- Sylvia Scharf: @Kathryn, that seems to be what I was seeing, too.
- Emily Fano: I may have missed this. How many respondents did the survey have and do you have gender and geographic breakdowns?
- Imani Malaika-Mehta: Please answer my question on actual numbers of parents complaining.
- Sarah Bodor (she/her) NAAEE: @Kathryn, that does seem to be the case!
- Kathryn Hopkins: Thanks. I find that fascinating 😊
- Estefanía Pihen: Wondering if any of the questions focused on the connection between social justice-environmental justice-climate change
- Imani Malaika-Mehta: No way it is B-!
- Emily Fano: I may have missed this. How many respondents did the survey have? Was it broken down by geography at all?
- Imani Malaika-Mehta: I guarantee that climate change is not being taught in Title 1 schools!
- Emily Fano: Thanks Judy
- Pam Loeb: n=812

- Sylvia Scharf: @Imani, I think the idea is that they were looking at teacher perceptions, rather than actual parent behavior. In other words, seeing that the fear of parent push-back is a barrier, whether the parents are pushing back or not.
- Sarah Bodor (she/her) NAAEE: @Imani, we didn't gather that data (on actual parent complaints) in this survey. To me, an interesting takeaway--based on other parent-focused surveys--is that there is potentially an information gap between teacher concerns/perceptions and reality.
- Sarah Bodor (she/her) NAAEE: @Sylvia, well said!
- Imani Malaika-Mehta: I agree, Sarah.
- Josh Bearman: Science is simply not taught in K-5, climate or otherwise
- Imani Malaika-Mehta: Sylvia, I wonder where the teachers' get that perception if there is no actual push back.
- Sylvia Scharf: @Imani, from teachers I talk to, it's the way that media portrays climate change as a political matter with such huge disagreement.
- Josh Bearman: History/SS is also not taught in K-5 . . .
- Imani Malaika-Mehta: I do get that, Sylvia. So teachers self-censor for no concrete reason?
- Laura Downey: @Imani, I think a concern is that the few parents who might complain, might also do it very loudly, publicly and bring it to school boards and cause the teacher challenges
- Estefanía Pihen: I work with teachers in SB and they do teach Science in K-5. I'm actually training them on how to weave climate change ed into core subjects, including Math and Science. Other local schools have connections with UCSB researchers and experts in CC that support with in-class talks and these happen during Science class-usually.
- Sarah Bodor (she/her) NAAEE: Also, in some instances teachers have been deliberately fed disinformation that the science is not clear. Well funded orgs send materials that look legit to teachers across the country and that perhaps contributes to confusion.
- Geoffrey Echemu: network not clear here in Uganda, apologies
- Sylvia Scharf: @Laura - 100%. The number of parents who complain are small, but they can be very loud.

Climate Change Resources/Opportunities

- Estefanía Pihen: @sarahbodor is there a publication or report where we can read about this? I have also seen that!

- Sarah Bodor (she/her) NAAEE: Just last month, the national science teaching assn had to eject an exhibitor from their conference for disseminating a comic book that was all about how great carbon is. It featured a cute cartoon cat.
- Judy Braus (she, her): Everyone can see these results and other reports we've done on our website: <https://naaee.org/programs/climate-change-education>
- Siobhan Starrs: @Sylvia and @Imani - I will drop a link to a recent museum and culture survey that you might find interesting. I think their findings re: perceptions around discord, complaints, opposition of interest. It can likely be inferred that the same patterns exist in formal settings. Upshot: the deniers/vocal negative perspective are an extreme minority, but because their opposition is ideological they are more passionate, louder, personal, and angry which magnifiers their impact on the listener(s). They feel larger and louder than they actually are.
- Geoffrey Echemu: thanks Judy...for sharing
- Siobhan Starrs: Link to data stories here: <https://www.wilkeningconsulting.com/data-stories.html>
- Sylvia Scharf: @Siobhan - I'd love to see that. Absolutely this is my experience, in climate change and other "hot-button" issues.
- Imani Malaika-Mehta: Sarah, this is a problem across the curricula, not just with climate change. When students do the research, learn how to do data analysis, are media literate, and study the science on both sides, they learn to to handle disinformation.
- Judy Braus (she, her): Everyone will get a copy of the recording and the chat. So please keep adding links to your work and other resources that will help all of us!
- Sarah Bodor (she/her) NAAEE: @Imani, so important and so true!
- Imani Malaika-Mehta: I wonder how many teachers even know about NAAEE certification?
- Sarah Johnson: Here's an awesome opportunity to share with all the teachers you know... there are still many scholarships available <https://climategen.org/summer-institute/>
- Emily Fano: Anyone interested can view the results of our Climate & Resilience Education Task Force's New York City teacher climate ed survey, done in partnership with the teacher's union in 2021 here: <https://bit.ly/3Vw9KU6> Seeing some similar results.
- Sylvia Scharf: Our Educator Guides are aimed at a wide range of high school teachers, not just science teachers. climate.mit.edu/educators
- Sarah Johnson: Here's an awesome opportunity to share with every teacher and educator you know... there are still scholarships available. And, perhaps you can

sponsor/encourage/inspire a teacher to participate. <https://climategen.org/summer-institute/>

- Estefanía Pihen: Also a great opportunity for teachers: https://www.globalschoolsprogram.org/post/global-schools-launches-fourth-cohort-of-the-advocates-program-to-build-capacity-of-teachers-on-sdgs?utm_source=SDSN&utm_campaign=519a83d480-EMAIL_CAMPAIGN_2022_04_22_09_48_COPY_03&utm_medium=email&utm_term=0_2302100059-519a83d480-179187186&mc_cid=519a83d480&mc_eid=47e210f92e
- Sarah Johnson: And if you're feeling like you (EE practitioners) might want to brush up on your base knowledge on climate change, dig into local impacts and solutions, and see things through a lens of climate justice... here's virtual course from CAEE starting in June <https://caee.org/civicism/event/info?reset=1&id=447>
- Judy Braus (she, her): Yes, everyone will get a copy of the chat, with the recording! :-)
- Estefanía Pihen: And if you know any teacher interested, at ECCLPs we are recruiting teachers: <https://www.ecclps.net>, please email lillyml@uci.edu
- Sarah Johnson: And one more offering... if you want to come to central Colorado in June (or you're already here), join in this course I'm offering at Western Colorado University: Becoming a Climate Change Educator in Every Discipline - details at <https://www.wildroseeducation.com/workshops>
- Climate Generation (3): New K-2 resources on Climate Change from Climate Generation: <https://climategen.org/resources/43007/healthy-habitats-climate-change-action-for-k2/>
- Sarah Johnson: one more... :-)

PD Opportunities

- Sarah Johnson: NNOCCI Introductory Presentation: The Science of Communicating Climate Change - free on May 22 <https://nnocci.org/event/free-introductory-presentation/>
- Ana Leirner: shameless plug, PLT Canada has also recently launched a resource for high school teachers called Climate Change and Forests: From Seed to Carbon Sink that directly address many of the gaps identified in the research: <https://pltcanada.org/en/product/climate-change-and-forests/>
- Neil Markowitz: Any data on student's confidence to talk 'out loud' on this kind of potentially (depending on geography and context) controversial topic...in a lot of places these students are also going home to parents who are de facto climate deniers.
- Sarah Johnson: the PLT Canada resource is pretty fantastic!!

- Sarah Bodor (she/her) NAAEE: @Ana, shameless plugs welcome!
- Anne Umali, NAAEE: Please keep the resources and “shameless plugs” coming! We’ll compile all of the notes and share with everyone, along with the recording.
- Imani Malaika-Mehta: Earth Day is a perfect opportunity to introduce the subject. Few classes teach current events so that students understand what is happening in the world surrounding them.
- Sylvia Scharf: @Neil maybe someone else has the link, but there was a great study a while back showing the power of kids (especially girls) to change their parents' (especially dads') opinions on climate change.
- Neil Markowitz: Love to see that data, thank you
- Kendall Post: My program Sprout Up trains college student volunteers to teach EE and Climate Change in a fun and age appropriate way for 1st and 2nd grade classrooms to take the pressure off of teachers. This presentation shows the great need at that grade level for support. If you’re interested in learning more please reach out to me kendall@sproutup.org or check out our website <https://www.sproutup.org/>. We are currently working with students at 8 universities and want to continue to expand our program to new regions!
- Sylvia Scharf: @Neil here's at least a quick link <https://www.scientificamerican.com/article/children-change-their-parents-minds-about-climate-change/>
- Sarah-Mae Nelson: PD and training opportunity currently available in California, and coming to Illinois next year, Climate Stewards certification that includes optional Continuing Education credits through UC Davis. Our course covers the science as well as communication, social-emotional resilience, trauma-aware practices, DEI issues, and more - <http://CalNat.ucanr.edu/cs>. you can also reach out directly smanelson@ucanr.edu. Here a link to our paper on the course: <https://www.mdpi.com/2071-1050/14/3/1804>
- Anne Umali, NAAEE: Learn more about NAAEE's climate ed work: <https://naaee.org/programs/climate-change-education>
- Josh Bearman: It is as much about what the tested standards say - Virginia is currently a Rep. controlled state at the governor’s level, but Climate dynamics and climate change are written into the state standards, which are just as meaningful to teacher actions.
- Lori Mann: Along with all the welcome shameless plugs if you haven’t yet, I hope many of you are submitting proposals for NAAEE's fall conference to share the great work you’re doing! The deadline is Friday. <https://conference.naaee.org/>

- Siobhan Starrs: @Neil - contact Dr. Kathryn Stevenson in NC. I think it's archived in EEPro, too. She has a lot of really compelling data and longitudinal research.

Supporting Educators

- Imani Malaika-Mehta: Teaching to the test squeezes EE out of the curriculum.
- Sarah Johnson: the more accurate link for the CAEE eeLearn Climate Change Literacy course for any non-formal or formal educator across the country... course starts in June <https://caee.org/civicrm/event/info?id=478&reset=1>
- Zee Zetino: That makes sense
- Eileen Merritt: I think this is the article about intergenerational learning you are looking for:
<https://www.sciencedirect.com/science/article/pii/S0959378018304552?via%3Dihub>
- Josh Bearman: @Imani, agreed but not when environmental subjects are written in as tested content topic. In my experience, that is what drives what teachers teach, anyway
- Marc Rogoff: CLEAN, SubjectToClimate, Green Ninja
- Sarah Johnson: Pointing teachers to the CLEAN Network
- Sarah-Mae Nelson: I haven't seen anyone mention CLEANet.org yet - science reviewed lessons for almost all grades
- Anne Umali, NAAEE: CLEAN Climate Literacy and Energy Awareness Network
<https://cleanet.org/index.html>
- Sylvia Scharf: +1 for SubjectToClimate.org
- Michèle Andrews: In the shameless plug category... I am the ED of a NFP in Canada running a 3-year cohort program with schools working on whole-school high impact climate action plans with a focus on regeneration and hope. School teams include senior admin, faculty, facilities and student leaders. Lots of resources free on our website. www.DoorNumberOne.org/climate-action-accelerator-program. I am co-facilitating a retreat/learning institute this summer in Maine at The Ecology School, where we are going to explore systems change and creating a community of practice around regenerative, whole-school climate action. Bill Reed is doing our opening workshop. All welcome! Info on that website. Thanks!
- Estefanía Pihen: Climate To Subject also has curated lessons plans for all subjects
- Tania Marien: Consider "The Carbon Almanac" — especially "Generation Carbon" an almanac for kids available for free in 22 translations, one of them in Dyslexie Font. A print-on-demand version available on Amazon. See corresponding podcast network and an interactive resource linking issues to actions addressing the interdisciplinary topics addresses in "The Carbon Almanac." View all resources at

<https://thecarbonalmanac.org>. The Carbon Almanac Network wrote the book to make it easier for everyone to talk about climate change. The network exists to help create the conditions for generous and respectful conversation about our changing climate.

- Marc Rogoff: PRI - Teacher Friendly Guide to Climate Change
- Karen Cowe: California is currently developing open education resource Climate Change and Environmental Justice curricular resources.
- Judy Braus (she, her): Thanks for all the resources and discussion in the chat. Great links!
- Imani Malaika-Mehta: Can you send out a copy of the chat or at least the links that were posted? Thanks
- Ana Leirner: Thank you Judy and NAAEE team for your leadership and excellent work on this critical topic! The research and tools are extremely helpful.
- Anne Umali, NAAEE: Yes, we'll share the chat notes along w/ the recording!
- Imani Malaika-Mehta: Thanks, Anne!
- Karen Cowe: Link for the CA work: <https://tenstrands.org/work/climate-change-and-environmental-justice-program/>
- Kristina Meek: Is there any data on how informal education (e.g., field trips) influences climate change education in the classroom?
- Marc Rogoff:
 - 2020 New Jersey Scientific Report on Climate Change - NJDEP
 - Climate Change Impacts on Human Health and Communities - NJDEP
 - 2020 New Jersey Global Warming Response Act 80x50 Report - NJDEP
 - Report on K-12 Climate Change Education Needs in New Jersey – SJ4S & NJSBA
 - New Jersey's 2020 Student Learning Standards Update – STC & TCNJ
 - Sea Change: Effective Communications for Climate Education Policy – CCEP
 - Teaching About Climate Change: Water, Trees, and Wildlife – WET/WILD/PLT
- Neil Markowitz: Valuable data, thank you so much for this sharing
- Marc Rogoff:
 - The Climate Literacy and Energy Awareness Network - CLEAN
 - Climate Change Resources for Educators and Students - USEPA
 - The Teacher-Friendly Guide to Climate Change – PRI
 - Climate, Water and Resilience Educator Guide – Project WET
 - Carbon & Climate E-Unit for grades 6-8 – Project Learning Tree

o Climate and Wildlife – Project WILD

- Susan Golden: Thank you for an informative presentation
- Michèle Andrews: One of my favourite recent example of great climate action - <https://sustainability.dpsk12.org/2023/01/06/see-the-dps-climate-action-plan/#:~:text=In%20it%20we%20are%20changing,of%20environmental%20justice%20and%20equity.>

Closing Remarks

- Estefanía Pihen: Thank you so much!
- Ana Leirner: +1 Marc!
- Jennifer Mutch: Thank you for this data- so informative
- Sarah Johnson: I'm curious how this research will drive NAAEE program initiatives and strategies?
- Karen Cowe: Great information! Thank you, Lisa and Pam!
- Amy Thompson: Thank you SO MUCH for this. This is helpful even from a Canadian context as well.
- Judy Braus (she, her): Thanks, Lisa and Pam! We couldn't have better research partners! :-)
- Shari Wilson: Thank you for sharing this interesting and relevant study!
- Anne Umali, NAAEE: <https://naaee.org/programs/climate-change-education>
- Chris Eames: Thanks from New Zealand. Trying here to get our Govt on board with climate change education, so this data will be very helpful!
- Sylvia Scharf: Can we get a link to the NGO survey?
- Anne Umali, NAAEE: The State of Climate Change Education: Findings from a National Survey of Educators: https://naaee.org/sites/default/files/2023-02/NAAEE_State%20of%20Climate%20Change%20Education%20Report_SUBMITTED%2012_12_22%5B1%5D.pdf
- Marc Rogoff: Effective teaching of Climate Change must include the following:
 - A Focus on Hope (not doom & gloom)
 - Show Empathy (don't focus on blame)
 - Feature Positive Actions (counter helplessness)
 - Relevance (everyone has a role to play)
 - Social and Environmental Justice (diversity, equality, & respect)
- Jimena Cuenca: @Katrina On the topic of research on how informal education influences climate change education--I also recommend taking a look at the eeRESEARCH library <https://eepro.naaee.org/research/eeresearch>

- Andra Yeghoian: Thank you for this great research and summary of findings! Very excited to put this to use in California.
- Anne Umali, NAAEE: Guidelines for Excellence Project:
<https://naaee.org/programs/guidelines-excellence>
- Marc Rogoff: Marc Rogoff - Lead Educator, NJDEP, and member of NEEAC - marc.rogoff@dep.nj.gov
- Zee Zetino: Will this recording be shared out?
- Celeste Royer: Thank you Lisa, Pam, and Sarah. A lot of information to review and consider. Thanks to all for the great resources you shared in the chat.
- Anne Umali, NAAEE: Coalition for Climate Education Policy
<https://naaee.org/programs/coalition>
- Michèle Andrews: Are you also tapping into Canada for some of your excellence series? And into Elin Kelsey's work on evidence-based hope?
- Judy Braus (she, her): Thanks, Michele. Elin's work is terrific. As Marc said, we need a focus on hope! :-)
- Celeste Royer: And thanks Judy for hosting this webinar. These are important topics to discuss.
- Jimena Cuenca: On <https://eepro.naaee.org/research/eeresearch>, I recommend entering "climate"
- Ashleigh Boice: Thank you so much! This is great information!
- Laura Branby: Fantastic! Thank you all!
- Robin Madel: This was great. Thank you.
- Judy Braus (she, her): Hi, everyone. We will have a follow up that hits on many of the issues you've brought up and the results of other research taking place! :-)
- Madeleine Girgis: Thank you so much!
- Laura Downey: Bravo NAAEE!! Really important work and so much great and invaluable information for us all
- Elaine OSullivan: https://www.audubonadventures.org//climate_change_crm.htm
- Sarah Bodor (she/her) NAAEE: Hooray for nature preschools!
- Laura Downey: @Sarah, YES!
- Judy Braus (she, her): Thanks to all of you!!! Pam, Lisa, Sarah, and Anne!! And thanks to all of you for joining!
- Laura Markham: Thank You!
- Jimena Cuenca: Thank you!!
- Michèle Andrews: Thanks!
- Josh Bearman: Thanks!
- Jennifer Bartlau: Thank you!

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- Estefanía Pihen: Thank you!
- Mallory Lampe: Thank you!! Very very helpful information!