



Climate Resilience and Communities: Appendix

The Impacts of Communities Advancing Science Literacy

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Appendix A: City Team Workshops

Station A: CASL Events

Prompts

- What events were most popular? How could you tell? Who joins (#s, ages, groups)?
- Roughly how many were interested to take action after the event? How could you tell?
- What skills and knowledge do community members have to take action?
- What else do they need?

Results

In Boston, City Team members engaged with the community through an assortment of community events ranging from educator trainings, community trainings, IMAX showings, and conversations. These events drew a variety of crowd sizes (e.g. IMAX screening brought 75 attendees, and a maritime festival brought over 500 attendees) to engage with topics like marine science and climate change, and indicated and increased public interest (e.g. parents and kids) in the aquarium like partners followed up about future events, and booked outreach programs at schools, and one community member perusing an internship with the aquarium. One City Team member shared that after students participated in one of the “community conversations,” they felt more “heard” within their community and that attendees voiced interest in learning more about marine science and maritime issues. In Boston, CASL also connected with communities through shore line and neighborhood clean ups, as well as planting and composting, and recycled art projects.

These events helped the Boston City Team determine that the community has a strong general understanding of their environment (e.g. ability to identify plants and animals, where local coastal areas and located, identifying coastal areas in neighborhoods) as well as the ability to share about additional concerns in their community. However, city team members felt that the community would benefit from developing ways to explain scientific issues by developing what one City Team member called “interesting tidbits” that attendees could take away from events, as well as more learning opportunities but didn’t clarify what this information should include. While the City Team identified that the community has an overall grasp on the social and environmental challenges they face, they shared that connecting those issues directly to climate change can be challenging for community members.

City Team members in Boston also shared that CASL inspired one organization to collaborate with partners. One organization is taking action toward protecting local wetlands, and another leveraged partnership to ban single use plastics but didn’t specify with whom. Additional connections were formed between the NEAq and local communities through planning of workshops, retreats, educational events, community conversations, fundraisers, and service trips.

CASL events in Long Beach served around a few hundred people from all over Long Beach and included retreats, community conversations, a climate resilience booth at events with the AoP and other organizations, fundraisers and program meetings at different locations. Some of these events celebrated examples of successful partnerships between the aquarium and local organizations, which was a successful outcome identified by Long Beach City Team members. These events also lead to an increase in organizations following each other on social media. Long Beach City Team members shared that such partnerships could leverage their ability to address social and environmental justice at the same time if science organizations priorities making connections between the two more explicit. One City Team member also shared that community building like this creates a pathway to collective activism. Similar to Boston, City Team members in Long Beach also determined that their community has a strong understanding of the coastal environment they inhabit (e.g. lack of waterfront accessibility, sea level rise, highway expansion, displacement etc.).

Station B: Connection to the Environment

Prompts

- What social and environment-related issues are important to your community members? (Where applicable, City Teams should draw arrows to indicate how issues are connected to each other)
- How do these issues affect the community members' lives?
- How do your community members think about climate change? Put a check next to the appropriate word. Or add a new one.

Results

City Team members from Boston and Long Beach identified similar concerns their community members face and listed the myriad of both social (e.g. affordable housing, lack of opportunity for formal education, disconnection between social groups, lack of upward mobility, etc.) and environmental issues (e.g. erosion, ecosystem health, air quality, etc.) these coastal communities face. Social issues related to gentrification surfaced in both communities including lacking housing stability and displacement resulting from recent development, feeling a lack of representation and voice within local and state governments, and that their community was particularly victimized or seen as a "front line community." We heard from Boston CT members that people often feel the challenges facing their communities results in what can feel like a fractured community lacking relationship between neighbors often results when people are forced out of their community.

Boston City Team members made particular note of the environmental justice concerns facing their community, like where people live in proximity to highways and petrol tanks, as well as the threat of sea-level rise related flooding in a community where many people don't know how to swim. Long Beach brought up concerns around access to high quality and safe open green space, the impact of air and water quality on the health of the community, and needing infrastructure to support bikeable/walkable streets. Though the Long Beach CT identified concerns that relate to both social and environmental issues, it is unclear from the way it's listed to determine what types

of connections community members are able to draw between the social and environmental issues they face.

In both locations City Team members were acutely aware of the negative health and emotional impacts of these concerns on the community. Across the board, City Team members reported that feelings of alarm, concern, cation, disengagement, and hopelessness were present in their community members in regard to climate change. In Boston, we heard from CT members that social issues generally lead to anger and frustration, while environmental issues can be so overwhelming that they evoke concern to a degree that has led to “taking the back seat” as a form of “survival mode” or disengagement. However, one Boston City Team member clarified that people only feel disengaged until a natural disaster occurs, and in Long Beach City Team member shared that the people know they are experiencing impacts, but don’t always tie it directly to climate change. Both communities also mentioned health risks resulting from pollution and increased stress. Long Beach mentioned the specific risk these pose to life expectancy and birth rate in the area.

Station C: Taking Action

Prompts

- Before CASL, what actions were community members doing to tackle environment / social issues?
- What about after they attended a CASL event?
- Do they work with their friends/neighbors/families? How?

Results

Both Boston and Long Beach City Team Members shared that CASL influenced community action and awareness on social and environmental issues. In Boston, we heard that CASL led to greater awareness and action on issues wetlands that were previously identified by the community, like using less plastic and protecting wetlands. Additionally, Boston City Team members shared that CASL encouraged the community to take action on banning plastic bags through the city’s council but didn’t explain how. CASL also brought youth into the conversation more, as well as providing guidance on how community members can use apps and additional resources to not only communicate with their neighbors but to take action on local issues, and make informed decisions though CT members didn’t provide more information on what these resources were.

In Long Beach, City team members shared that groups in the area were already doing this kind of work in the community (e.g. environmental justice issues relating to pollution in the port, freeway expansion, and waste disposal), but that CASL has helped make connections between social and environmental issues more explicit, but have not provided examples. Long Beach CT members shared that now science institutions are working to solidify the publics’ understanding of the connection between scientific concerns and social ones and suggested that partnerships between different kinds of organizations can leverage their ability to address social and environmental justice.

Station D: Building Stronger Communities

Prompts

- What are your community members' greatest needs and priorities?
- What would make your community stronger?
- How is CASL helping build a stronger community?

Results

Both teams shared a list of priorities that involved well-being for people and the environment.

Boston City Team members used the term "resilience" specifically when they listed economic resilience as a community priority. In Long Beach City Team Members indicated the relationship between resilience and building social capital/power within their communities by ensuring that community members feel heard by people in power which can be improved by using partnerships with larger established institutions like the aquarium.

Long beach City Team members shared that protecting open, accessible, high quality spaces, creating a sense of community, affordable housing, mental and physical health of community members, accessible public transportation, environmental/ocean protection, and accessible education (e.g. ability to make informed decisions, intergenerational connection) are all priorities within their community. Similarly, Boston CT members listed, affordable housing, language access, access to health resources both mental and physical, and clean air, and safe walkable streets as priorities. CT members in Boston also mentioned environmental justice and creating more future activists as additional priorities.

From Long Beach City Team members, we heard that priorities vary by organization, some organizations prioritize serving specific immigrant populations (e.g. Khmer Girls in Action focuses on serving Cambodian population), another focuses on serving people that near a specific place (e.g. Colorado Lagoon) and those who visit it.

Strategies in both locations related to improving sense of community, shared power, and creating partnerships between multiple organizations/ groups. Boston CT members reported that engagement between new and old residents, increasing engagement of minority groups and youth, insuring stable affordable housing, and providing free resources like public transportation and swim lessons) to kids, would help make the community stronger.

CASL is helping build stronger communities in both Long beach and Boston through the collaborations it helped build, and the conversations/resources it inspired. In Boston, CT members shared that CAL had helped increase the reach of the programming to a larger audience that can now share resources, and the impact of smaller organizations getting to partner with a larger one (the aquarium). Similarly, In Long Beach CT members shared that partnerships allow them work toward common goals and capacity building, because they've found that no organization can do it all by themselves. CASL has also helped with shifting and sharing power within the community in Long Beach according to the CT members, though they didn't specify how.

Appendix B: Organizational Staff Interview Protocol

Overview

As part of reframing the CASL project, in the context of the coronavirus pandemic and the calls to end systemic racism, organizational and staff capacity building to engage with communities was considered a meaningful outcome. We see this outcome as one measure of institutional change to assess the research question about the role of cultural institutions in community climate literacy.

This 30-minute interview protocol will be used with organizational staff including leaders at both NEAq and AoP, to learn their perceptions of institutional change at the conclusion of the CASL project. Questions will be framed to contextualize the changes and learning that have occurred in light of the dynamic circumstances in the public health and societal landscape.

Institutional Change will be assessed in a number of ways - the perceived value of the community-ISLC partnership, the value added to its organization's work towards its mission, anticipated benefits to the organization's constituents, perceptions of its impact on the organizational culture, and the perceived role of the organization as a changemaker in the community.'

Text enclosed with **brackets (i.e., <text>)** represent explanatory notes for the interviewer.

Interview Protocol

Module 1: Introduction (00:00)

Thank you for speaking with me briefly about your perspectives on the CASL project and its role to advance <NEAq/AoP>'s goals and mission. As you may know, CASL stands for Communities Advancing Science Literacy.

My name is _____ and I work at Knology, the research and evaluation partners on the CASL project. We are interested in hearing how you see the project help your ongoing and future work at <NEAq/AoP>.

Your responses will contribute toward better understanding how the CASL is building organizational and staff capacity to learn and engage more with community partners.

Please remember that you are not being personally assessed, so we hope you will offer honest feedback. There are no identifying questions on the survey, and your name will not be associated with your responses.

You will not be identified individually for any reporting. Your responses will be anonymized and reported in aggregate with NEAq and project leadership to refine future such efforts.

The interview is completely voluntary and you may choose not to respond to any question you don't want to answer.

Do you feel comfortable if I record this conversation so we can refer back to it?

<If yes> Thank you! <If no> No worries, I'll take notes.

Do you have any questions before we begin? <address any questions to the best of your abilities>

Module 2: Institutional Change (00:05)

1. Based on your familiarity with CASL, how has the project aligned your organization's mission?
<probe> to what extent are you familiar with the project?
2. Do you think differently about <NEAq/AoP>'s role in the community because of CASL? And If so, how?
<probe> Do you feel the work with CASL has helped <NEAq/AoP> redirect its approach to working with the community? If so, how?
<probe> Do you feel CASL has helped <NEAq/AoP> reach new or different parts of the community?
3. Do you feel the role of <NEAq/AoP> in the community will further shift because of the pandemic? <follow up based on response to #2 and specific probes>
<probe> Do you think it will shift because of the calls to end systemic racism?
4. How has the project helped <NEAq/AoP> think about the idea of 'resilience'? I know the term is quite abstract, so curious how you see the aquarium's take on it.

Module 2: Staff Professional Capacity (00: 20)

5. To what extent do you feel staff at <NEAq/AoP> have benefited professionally from CASL?
6. To what extent, do you think, you personally will shift your work at the aquarium, as a result of CASL
<probe, if applicable> what support will you need in the future to continue this work?

Module 3: Overall Thoughts (00:25)

7. What would you say is the biggest impact of this project for <NEAq/AoP>?

These are all the questions I have. Is there anything else you'd like to share that I didn't ask?

Thank you so much for taking the time to speak with me.

Appendix C: Webinar Attendant Interview Protocol

Overview

As part of reframing the CASL project, in the context of the coronavirus pandemic, staff capacity building to engage with communities was considered a meaningful outcome. We see this outcome as one measure of institutional change to assess the research question about the role of cultural institutions in climate literacy.

This 30-minute interview protocol aims to capture the learning of attendees of a webinar conducted by Frameworks Institute, co-developed with NEAq and AoP. The webinar presented research insights related to framing discourse on public health and resilience, focusing on the socio-cultural models that influence public thinking around the afore mentioned topics.

Text enclosed with brackets (i.e., <text>) represent explanatory notes for the interviewer.

Interview Protocol

Module 1: Introduction (00:00)

Thank you for speaking with me briefly about your experience participating in the webinar titled “From Crisis to Connection: How to Talk about Health, Wellbeing, and Resilience in the era of COVID-19” hosted by the New England Aquarium and the Aquarium of the Pacific.

My name is _____ and I work at Knology, the research and evaluation partners on the CASL project, which stands for Communities Advancing Science Literacy. We are interested in hearing how activities as a result of this project (like the webinar) help your ongoing and future work at <NEAq/AoP>.

Your responses will contribute toward better understanding how the CASL project and its activities are helping staff internally to learn and engage more with community partners. Your responses will help the project support staff like you in the future to engage with communities. Please remember that you are not being personally assessed, so we hope you will offer honest feedback. There are no identifying questions on the survey, and your name will not be associated with your responses.

You will not be identified individually for any reporting. Your responses will be anonymized and reported in aggregate with NEAq and project leadership to refine future such efforts.

The interview is completely voluntary and you may choose not to respond to any question you don’t want to answer.

Do you feel comfortable if I record this conversation so we can refer back to it?

<If yes> Thank you! <If no> No worries, I'll take notes.

Do you have any questions before we begin? <address any questions to the best of your abilities>

Module 2: Learning from Webinar (00: 05)

1. What was your biggest takeaway from the webinar?
<probe> What is the one thing that has stayed with you even now?
<probe>What most surprised you?
2. How did it help you think about the idea of 'resilience'? I know the term is quite abstract, so am curious how the webinar helped your thinking.
<probe>How does the context of the pandemic affect your thinking about resilience?

Module 3: Implications for Professional Capacity (00:15)

3. What is your role at <NEAq/AoP> and how do you anticipate using what you learned in that role?
<probe> What shifts do you see anticipate in how you engage with your colleagues at the aquarium?
<probe> What shifts do you see anticipate in how you engage with the public audiences you work with?
<probe> To what extent, if at all, do you think you'll change how you do things at the aquarium, as a result of the webinar?
4. To what extent do you feel you have benefited professionally from the webinar?
<probe> How relevant is it in your current role at the aquarium?
<probe> How relevant is it in the career stage you are in now?
5. How can the <NEAq/AoP> continue to support this type of learning?

These are all the questions I have. Is there anything else you'd like to share that I didn't ask?

Thank you so much for taking the time to speak with me.



Knology

Behaviors

Biosphere

Culture

Media

Wellness

Systems

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