Ebb and flow: Defining rules of engagement for collaborative research in coastal water quality

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Abstract:
Discussions of public participation in scientific research often focus on the quantity of participation throughout the research process. However, perhaps a better indicator of successful collaborative research involving the public is the quality of participation that occurs. In addition, both quantity and quality of participation shift throughout the course of a given research project, making classification of participation complicated. This work uses ethnographic methods (participant observation, semi-structured interviews) to document the moments during the research process where the quality of participation is determined, using indicators of access, dissent, negotiation, and technology. The project engaged fishers and scientists in questions of water quality as relevant to negotiation, and technology. The project engaged fishers determined, using indicators of access, dissent, negotiation, and technology. The project engaged fishers and scientists in questions of water quality as relevant to negotiation, and technology. The project engaged fishers and scientists in questions of water quality as relevant to negotiation, and technology.

Four metrics of participation quality:

Access
Logistical and intellectual – e.g. financial capabilities, power dynamics in relationship, physical distance between collaborators, understanding of publication process, etc.

Dissent
Healthy dissent indicates that collaborators are comfortable and honest with each other and invested in the project.

Negotiation
Shows that contributions are truly integrated and that results are co-created instead of divided and conquered.

Technology
Could help or hurt, by increasing training needed for complex technology or by increasing access due to added communication avenues.

The Collaborative Research in a Nutshell:

Based on concerns in the fishing community of a lack of data regarding seafood safety, we first decided to test the daily catch for mercury and PCB content (results: seafood’s safe according to EPA). I then had personal meetings with each participant to discuss the results and we met as a group to decide ‘what’s next’. We collectively decided on the next question to answer – are there pesticides in local fishing grounds? The answer: No.

Conclusions, Lessons Learned:
Define while planning the project whether the goal of collaboration is to integrate existing knowledge or to innovate new knowledge. This will guide the structure of interactions – we were attempting to innovate but workshop format turned out to be better for integration.

There needs to be a logistical coordinator who watches all the moving parts of a project – answering volunteer questions, reserving lab space, ordering equipment, keeping track of deadlines and grant reporting, and scheduling meetings. Such facilitators are critical. That person ended up being me in this case.

Our project is unusual in its tri-modal structure, each requiring a recommitment to the project and offering the opportunity to hop in and out as needed. Participants expressed gratitude that they had options for their level of commitment over the year the project took place that allowed them to balance family and career needs while not backing out completely.

Partners: Fishers from Walking Fish Community Supported Fishery, Core Sound Seafood, the Styron family, Blue Ocean Market, the Morris family, Newman Family Seafood, Full Circle Seafood, Seaview Crab Company, and scientists from NOAA, Duke University, University of North Carolina – Chapel Hill, NC Division of Marine Fisheries, North Carolina State University