Getting Engaged: "Public" Engagement Practices for Researchers[1]

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This document is part of the introduction to a series that aims to help readers become more comfortable with and capable of engaging various stakeholder audiences, titled *Getting Engaged* (http://edis.ifas.ufl.edu/topic_series_getting_engaged). This document is designed for agriscience, natural resources, or other science and engineering faculty with primarily natural or physical (rather than social) sciences backgrounds who want to get started in stakeholder engagement. This document is also applicable to non-faculty research personnel in these disciplines who are interested in engagement. However, even personnel with degrees in education may have knowledge that is more theoretical and thus be in need of the practical approaches found in this document.

Two similar introductory documents for beginning stakeholder engagement are aimed at Florida's State Extension faculty and County Extension faculty, though they are also relevant to Extension personnel nationwide. Other documents in the series cover resources for engagement, improving engagement practices, and specific research-based strategies for engagement messaging, such as how to communicate risk or how to work with particular audiences, relevant to both beginning and experienced engagement personnel.

Introduction

Professionals in natural sciences or engineering may have little experience with or formal professional development about working with audiences who are not specialists in those areas. *Public engagement* refers to a wide range of activities designed to bring scientists and non-specialists together to work together on issues that can be informed by scientific understanding and to discuss the benefits and risks of potential approaches (American Association for the Advancement of Science 2013). Public engagement can also support efforts to build future scientific and engineering workforces (Carnevale, Smith, & Melton 2011).

Despite the importance we place on these efforts, working with such stakeholders can be intimidating if one has not had the opportunity to learn how to do so effectively. Whether you want to connect with policy makers, community members, or youth, practicing ways to engage diverse audiences outside your specialty can help build your comfort with sharing your work broadly.

Practicing engagement can look different depending on the audience, but it encompasses a wide range of strategies. For example, museum exhibits and programs; science festivals; county, state, and commodity-based agricultural fairs; lecture and discussion series; school visits; and media and social media are all forums in which you can practice public engagement. All of these strategies aim to value each

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participant's expertise equally. That is, a scientist with years of academic expertise is valued for that expertise and her or his contribution to the problem at hand instead of seen as all knowing. At the same time, a community member with expertise on the community or other aspects of the problem is equally valued for her or his expertise. All participants recognize the limits of their own knowledge and that of others as well. As we move toward showing the impacts of our research through motivating true, scientifically informed behavior change, engagement can help us understand the needs, barriers, and motivations of our audiences beyond information and facts.

What is public engagement?

Researchers and practitioners who hope to facilitate communication among diverse audiences have gradually changed our language to acknowledge our own previous deficit ways of thinking. Previously, scholars used *public communication* and *public understanding* to describe efforts to share research broadly. These terms, as well as outreach, connote a one-way model of information transmission and characterize the audience as simply unaware of the information that would lead them to "rational" decision-making. This recent shift in language to *public engagement* allows our actions to reflect better current models of practice involving mutual learning by both the "presenter" and the "audience" (McCallie et al., 2009).

A shift to characterizing our efforts as improving engagement means that we acknowledge that scientific knowledge is only one part of the ultimate puzzle of working together toward common goals. If we truly want to change behavior, we have to listen to our audiences. Accompanying this shift is a change from a mentality of communicating toward a mentality of communicating with our audiences and communities. For example, many shoppers already know that using reusable bags is a good idea. However, they still fail to use them. By communicating with the audience, we discover that the problem lies in remembering to bring the bags to the store (Laakso, 2013). Then engagement professionals can work with the audience to create campaigns to overcome this barrier rather than more campaigns encouraging shoppers to purchase reusable bags. Communicating *with* our audiences allows us to recognize their expertise and value their input on the matter, thereby targeting interventions to facilitate more meaningful change.

Public is a problematic term as well because it implies a homogenous "other" audience. However, in some situations, research professionals are also the audience. Some researchers and practitioners use *community engagement* to describe this work, perhaps making it easier to conceptualize both the researchers and the non-specialists as equal members of the same, more local group. There is no one single public, which is a good thing, because then you do not have to be all things to all people in any individual engagement encounter.

You have a particular expertise around a specific scientific domain, but the audiences you are engaging with have expertises too. It may not be formal academic expertise, but it could be an expertise about their community and the needs of the people, as well as an experience-driven understanding of how the world works. It is vital that you learn from their expertise in order to recognize and work with the audience's current understanding. Ultimately, we need to think about sharing our diverse perspectives rather than having a one-way flow of information from an "expert" to a "non-expert" in order to practice true public or community engagement.

Why do public engagement?

- First and foremost, public engagement allows scientists to better understand the needs of their stakeholders (American Association for the Advancement of Science, 2013). Understanding your audience beyond just the level of interest and background in your topic allows you to grasp the complexities of their situations and what you may be asking them to give up in exchange for the behavior change you want to see. For example, in order to eat food that is more nutritious, a family may need to change where they shop, learn new recipes, or get buy-in from all family members.
- As a professional at a land grant university, even if your appointment is outside the colleges with explicit Extension responsibilities, public engagement is a part of serving the institutional mission.
- For researchers seeking grant funding, many agencies including the USDA, NASA, and the NSF require evidence, not only of sharing your work with outside audiences, but also of *effectively* doing so.
- Youth, especially from underserved communities, need role models to imagine what is possible in science and engineering careers (Riegle-Crumb & Moore, 2014). Knowing real professionals in their communities makes careers in agriscience and engineering more concrete.
- You can use engagement strategies in your classes too. In fact, active learning and facilitating learning about scientific practices rely on many of these same strategies,

especially responding to and guiding learner-centered discussions.

- Public engagement can be one qualitative method for gathering needs assessment data about an audience or stakeholder group.
- You will likely find it fun and rewarding once you find the right outlet. You may even leave with inspiration for your own research.
- Knowledge sharing is essential to a democracy. As Toni Morrison told her students, "When you get these jobs that you have been so brilliantly trained for, just remember that your real job is that if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else. This is not just a grab-bag candy game." (Houston 2003, p. 4)

Taking the Leap and Getting Involved

The next four sections of this document lay out strategies for actually doing your first engagement activities. Start with the planning process in the first two sections. Then, after reflecting on your strengths and weaknesses during planning, you might use the following two sections, "Finding an Event" and "Beginning to Engage," if you do not have a specific type of program in mind that you want to work with.

Planning to Get Involved

When deciding what public engagement strategy to pursue, start with your goal in mind. As with any program planning, understanding where you want to end up will help you decide the best way to get there. Do you want to reach a new audience, such as residents of your local community, or do you want to work better with an audience with whom you already work regularly? You may want to build a single type of engagement experience you can return to with new information as your research progresses. Perhaps you want to share a particular finding of your work with a variety of audiences, in which case you will want to work with a suite of engagement experiences but have a single basic message adapted to reach different audiences.

Laying the Groundwork

A huge component of the engaging with mentality involves listening to those with whom you are engaging or want to engage. What are their needs? How can you help? Time spent learning about other cultures with whom you may want to engage, or who may have come to you for help, will improve your engagement effectiveness and efficiency in the end. Learning about the needs of your audience will help not only with the immediate engagement goal but also down the road with future audiences. One way you can do this is by looking at what recent media coverage exists for your discipline or topic of interest. For the local community you want to connect with, the local newspaper and public radio stations provide ongoing and in-depth coverage of the issues closest to home. Understanding what information people already encounter could better prepare you to answer questions or address certain viewpoints. To connect better with your local community's residents, attend other engagement events in your community so that you can learn about the audience already attending these type of events and think about the audiences that are not attending and why they might not attend.

Once you have outlined your goal and started learning about your audience, reflect on your strengths and weaknesses related to engaging the audience you have in mind. Are you anxious about standing and talking in front of a crowd, or even one-on-one or in small groups? Are you good with scripted interactions but feel stuck when faced with dialogue that is more spontaneous? Do you have no idea where to start with a new audience? Check the tips in the next two sections to address these issues.

Finding an Event or Program that Suits You

Engagement does not have to be a lecture or a visit to a K–12 school classroom. Public engagement can mean talking with your neighbors about what you do and why it is important. Engagement can take place online, through web or social media, especially if you engage in two-way communication through comments and discussions. You can volunteer at a museum on a regular basis. There are also larger events, such as community science festivals, special event days at local museums, or even university campus events that can facilitate opportunities for engagement. Summer camps, day camps, workshops, 4-H group mentoring, afterschool programs, and many more are well-established programs that often welcome professional scientists.

There is a whole landscape of emerging ideas of how to engage with the local community about science. Checking your local newspaper calendar listings regularly can offer ideas of existing venues and programs you could reach out to in order to volunteer to share your science. Science Cafés (http://cafescientifique.org/ and http://www.sciencecafes.org/) are designed to be public discussions with scientific expert input taking place in restaurants or bars. "Science in

Public"-style events include casual conversations with no agenda or presentation necessary; see https://talksciwme.wordpress.com/ and http://www.rhfleet.org/events/two-scientists-walk-bar. "Pop up" or "push" engagement involves ephemeral events that try to meet audiences where they are, as when museums host events in community spaces, or science engagement booths appear at art or music festivals. These are other ways to connect with your local community. Presentations or discussions with policy makers also qualify. Finally, you might create a song, piece of writing, play, video, or art object that incorporates science.

However, it is important to understand the strengths and weaknesses of each style of engagement for each audience as well as for yourself. You can pick the style you think will work best for your comfort level and goals, especially when you consult with the public engagement professionals organizing the event.

Beginning to Engage

There is ultimately no substitute for practice and learning by doing. You can read the background and go to workshops where you might try out engagement in a safer space with others learning the craft alongside you. As with teaching a class, you can start with designing a syllabus or, in this case, an outline of what your engagement might look like. You can consult with colleagues who have done engagement previously and with professional engagement practitioners and researchers in departments of education for feedback on your plans.

Eventually, though, the best way to learn the give-and-take of engagement is to sign up and get started. Find an ongoing opportunity or reach out to an organization or colleague and explain your interest. To connect with your local community as a new audience, you might select a museum event day and sign up to offer your research at a table or booth. Make your first Twitter account and start posting or volunteer at a museum event day. Start small and perhaps even partner with a colleague who is also new to engagement. If you are authentic, honest, and real, it is likely your audience will respond favorably despite any stumbling you may do. That feedback will bolster your confidence and move you quickly down the path to continual engagement.

Reflecting and Improving

Take time to reflect after each engagement strategy workshop you participate in as a learner, as well as each engagement experience you undertake. Think about what went well and what you could work on. Seek out further resources if necessary. After reflection, you should pick another event and continue to practice. If you did not like the style as much as you thought you would, try another type of engagement.

Each experience in engaging audiences should also ultimately help you understand that audience better. That in turn will make future engagement easier and more relevant. Finally, refer to the other documents in this series to learn research-based strategies to hone your engagement messaging.

Conclusion

The strategies laid out in this document are designed to help anyone who is just starting out in engagement become comfortable working with diverse groups. Following those strategies, continually reflecting on the journey, and using your new practices should help you become not only comfortable with, but also eventually fulfilled by, what might have been a dreaded experience previously. That increased comfort and facility will ultimately make the engagement experiences more valuable for your stakeholders.

Other Resources

The University of Minnesota's Extension Civic Engagement site.

National Alliance for Broader Impacts

Center for the Advancement of Informal Science Education

Katie Stofer's blog with postings of communication and engagement resources

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