

Scientific Communications Approaches

To Improve Environmental Health Literacy

By Jackie Curnick, MDP

Iowa Governor's Conference on Public Health

April 8, 2020

jacqueline-curnick@uiowa.edu



environmental health sciences
— research center —

About Me

- Masters of Sustainable Development Practice from University of Florida, Environmental Communication
- Documentary film production
 - Pulling Teeth from a Polar Bear, Environmental Justice on St. Lawrence Island Alaska
- Environmental Health Sciences Research Center at UI
 - Videos, Science Café, Environmental Journalism Summit

Health Communications

Ways of communicating: promotional information, targeted public health campaigns, educational programs, care provider and patient relationship

Seeks to:

- Increase knowledge and awareness
- Influence behaviors and attitudes
- Advocate a position on an issue or policy
- Seek support and use of health services
- Argue against misconceptions and false information



Health Literacy and EHL

Health Literacy- The capacity to obtain, process, and understand basic health information and services to make appropriate health decisions. (CDC)

Environmental Health Literacy (EHL)- sub-discipline combining environmental and risk communication, health literacy, and environmental health sciences.

- National Institute of Environmental Health Sciences (NIEHS) supports this field since 1990s
- Building capacity of researchers and community members to address disparities and concerns



Multi-media approaches

Media is becoming a critical tool for advocacy, action, and change. Includes journalism, video, photography, podcasts, social media, books, etc.

- Networks of solidarity
- Participatory storytelling
- Audience-specific information and messages



In the time of COVID-19

- Share stories from your community

- What your organizations are doing to prepare/respond
- Highlight work of specific individuals (researchers, healthcare workers, essential workers, teachers)
- Follow people over time

- Doing this remotely

- Have people film/record themselves and submit
- Learn to edit during this time :)
- Podcasts- zoom

Telling a science story

- A good story is not static, progresses over time, highs and lows
- What is at stake in your science?
- Scientific language vs story language
- Audience

“Storytelling includes a **creative element**, and it requires a certain level of **vulnerability**. As neither of these are emphasized in scientific training — scientists are typically taught to take themselves out of their work and to remain as **objective** as possible — it’s not surprising that this part of the learning process can be especially challenging” - Earth Magazine

Three stories

A Story of Self- Communicates to others why you personally have been called to do this work. Speaks to life experiences and choices you are making. Usually, these are moments of pain and struggle, and sharing them requires courage and a willingness to be vulnerable.

A Story of Us- Starts with “remember the time when we...” and articulates the values shared by a community. Helps people to identify with each other and with their community, not because they share certain traits—a categorical “us”—but because they share core values,

A Story of Now- communicates three elements in a single place: the urgent challenges that we as a community are called upon to face now, the hope that we can face them successfully, and the choices we must make in order to act. A public narrative ends—and often begins—with a Story of Now.

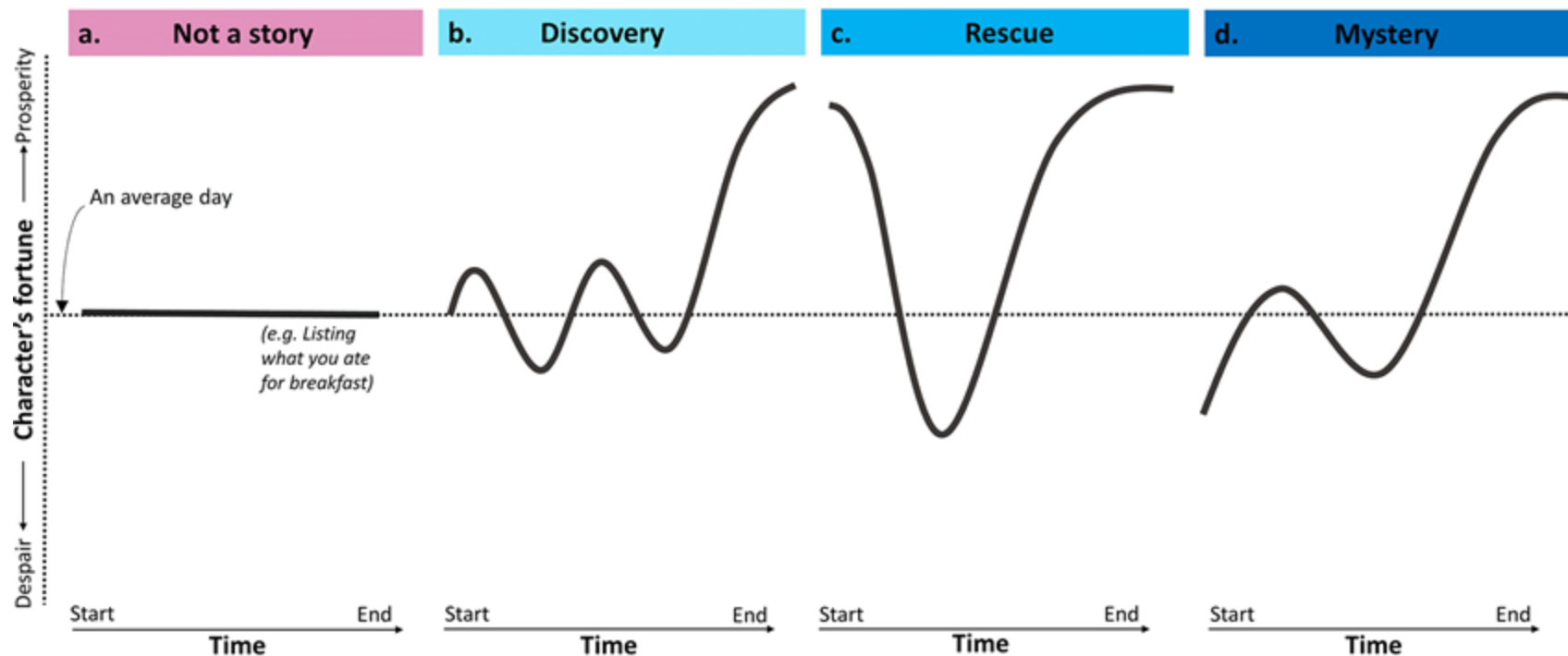
By ReThink Health by Pedja Stojicic

Story shapes for science

Discovery: Often scientists are the central characters. The listener invests in the scientist's well-being as we take them on a journey through the successes and failures of their experiments, analyses, or field experiences.

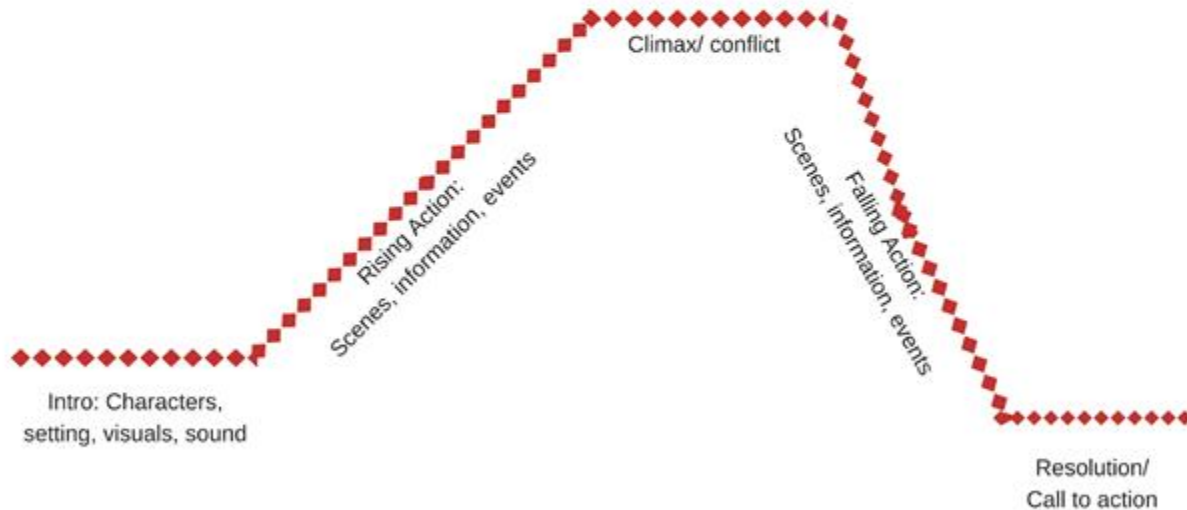
Rescue: problem-solving research that has the potential to rescue and restore. Audience steps into the story at a high point in the character's fortunes. They then experience a traumatic loss, followed by a recovery aided by science.

Shapes of stories



defining the story

The story I want to tell is (1-3 sentences) _____



Wind Energy Video



Interview questions and scope

What do you want to know about the topic

- Conversations with the community members, people who are being interviewed, and your own ideas/research about themes of topic
- Generate a list of most important topics and what messages you want to convey about it, what are you curious about.

Create a few questions on each facet of the topic

- Keep the questions open ended, sometimes even just a statement that the interviewee can react to

Interview a handful of people - finding balance

- Don't feel the need to show the opposing side. We focus on the science and what information we have.



MEDIA PRODUCTION BASICS ON A BUDGET

STAGES OF PRODUCTION

Pre-Production

- Secure funding
- Review and log existing media
- Talk with key stakeholders
- Determine the scope and story
- Determine who, what, when you can film
- Media Releases
- Acquire and familiarize yourself with equipment



Production

- Interview (questions, location)
- Filming and sound recording
- B-roll
- Music
- Story may change
- Stakeholders

Post-Production

- Media management
- Meet with stakeholders
- Analysis (see below)
- Story construction
- Editing
- Marketing and distribution

ANALYSIS TIPS

- Be familiar with the footage and interviews
- Transcribe each interview (if you have resources)
- Determine themes, arc, scene structure, pacing
- "What is the story I want to tell?"
- "Is this different than the stakeholders?"
- What else do I need to be able to tell the story?"
- Narration

<https://bit.ly/EHSRCResources>

Editing Software: I use Final Cut Pro X on a Mac, it is paid but you can use iMovie for free.

Other people use Adobe Premiere

It is possible to trim and edit clips on YouTube directly for basic editing. There might even be more sophisticated editing tools in Youtube that I have not tried.

OVERALL TIPS

- Know your audience
- Audio is critical
- Lighting
- Tripod, mono-pod, or shoulder rig
- The shorter the better, especially for social media
- Have a system for media management (where to store your files)
- Determine the goal and scope of your project before you begin
- Partner with someone from the community
- Youtube tutorials for all stages of production and editing

BASIC FILM KIT SUPPLIES

- DSLR camera and lenses (18-55mm lens most versatile)
- Back-up camera capable of video
- Rode shotgun microphone at attach to DSLR
- Zoom H1 sound recorder
- Lapel microphone(s) (to plug into Zoom)
- Tri-pod
- Memory cards (8 GB or greater)
- External hard drive
- Computer with Final Cut Pro X editing program (or other program)
- Extra batteries for each camera and microphone

Environmental Journalism Summit

Goals of the summit:

- Encourage excitement about the field of environmental journalism and using scientific research in storytelling.
- Foster a network of communicators and researchers to strengthen the capacity of regional environmental reporting.
- Provide information and discussion about relevant environmental issues.

Details:

- March 5, 2019, Drake Library, Grinnell
- 31 participants (journalists, students, Community Members)
- 15 speakers (Iowa Public Radio, lowawatch, Iowa Public Radio, Expert List provided)
- Video recorded



Agenda

- Activity: Telling our environmental story
- Science and Media Panel
- Hot Topics in Enviro Health (Neonics, Science Advisory Board, TB)
- Literature Discussion
- Acquiring and Analyzing Enviro Data
- Nitrates panel
- Systems Thinking and Story Generation
- Environmental Communication project Highlight- Cedar Falls High School



environmental health sciences
— research center —

GUIDE TO CREATING AN ENVIRONMENTAL JOURNALISM SUMMIT

This interactive 1 day summit brought together journalists, students, and academics to discuss the state of environmental journalism in the region.

Goals of the summit:

- Encourage excitement about the field of environmental journalism and using scientific research in storytelling.
- Foster a network of communicators and researchers to strengthen the capacity of regional environmental reporting.
- Provide information and discussion about relevant environmental issues.

You can access the Environmental Journalism Summit agenda and videos bit.ly/UIEJSummit

PLANNING TIMELINE

8 months out- Conduct phone conversations with journalists and media professionals about issues they see in environmental/scientific reporting. Ask what kinds of sessions/topics would be of interest to them, ask if they know of anyone else to talk to and partners who might be interested in the event.

6- 5 months out- Identify a venue, rough agenda, and begin to reach out to speakers (or advertise calls for speakers). Speakers for our event were a mix of scientific experts, working journalists, and academics working in environmental media. Identify potential partners to help pay for event.

4 months out- Create event materials for marketing, we had an event page on our website that listed the location info, rough agenda/speakers, and a link to the online application. Hire a videographer.

2-3 months out- Advertise to participants. Event partners/sponsors were helpful in advertising (especially if they are a journalist organization or journalism department), we advertised around campus using targeted emails and signs, invited college newspapers from around the state. For journalists we sent emails to newspapers all over the region and to specific journalists who had written environmentally focused articles recently. Reserve a caterer if needed.

<https://bit.ly/EHSRCResources>

Thank you!

Questions, comments?



Sources

<https://www.earthmagazine.org/article/comment-how-tell-good-science-story>

<https://www.rethinkhealth.org/Resource/telling-stories-that-promote-health-transformation>

Environmental Health Literacy: The Evolution of a New Field by Paasche-Orlow M, Hoover A, MDB - PEPH

Green SJ, Grorud-Colvert K, and Mannix H. 2018. Uniting science and stories: Perspectives on the value of storytelling for communicating science. FACETS 3: 164–173. doi:10.1139/facets-2016-0079

Finn, Symma and Liam O’Fallon. (2017) The Emergence of Environmental Health Literacy - From Its Root to Its Future Potential. Environmental Health Perspectives. 125 (4)

Saifudin, Mohamad and Mohamad Saleh. (2016). Media and Environmental Non-Governmental Organizations Roles in Environmental Sustainability Communications in Malaysia. Discourse and Communication for Sustainable Education. 8(1)