Public Engagement
Faculty Fellowship

From Zero to Sixty in 90 minutes: Preparing for a Communication Effort

Modified for PEFF

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Identify your opportunity

Congratulations! You have a great opportunity to speak about your work coming up. In two sentences or less, identify this opportunity and why it is important to you.

Audience

Every good communication effort starts with the ***audience***. With whom will you be speaking or to whom will you be writing? Take a few minutes to articulate an understanding of your audience using the prompts below. You may need to do some information-gathering to address the questions; for others, you may need to make educated guesses.

Activity: Make an Audience Profile

Logistical: What format will you use in your communication effort (written, oral, digital, etc)? How many people will engage? How much time will you have?

Goals and motivations: Why will the audience show up/listen/speak with you? How will the audience use the information?

Background and expertise: What type of background in the content are they likely to have? How can you connect to and build on what they know?

Beliefs and values: Why should the audience care about the topic? What matters to the audience? Are there likely to be charged or controversial topics which get raised?

Heterogeneity: How similar or dissimilar are the members of your audience likely to be? What kinds of different viewpoints, backgrounds, goals, and values are you likely to encounter? How might this shape your approach to working with this group?

Sources of information: What can be gleaned from organizers? What must you assume and/or make an educated guess about? What can be determined in real time (e.g., using tools like straw polls)?

Goals

Activity: Align the Goals

There are lots of different kinds of goals for a communication effort. From the list below, highlight the one option which feels *most closely aligned* with your goal as a communicator. If none of the options align, write your own goal.

- To highlight scientific concepts or approaches
- To create spaces for learning
- To inform or influence decisions and policies that affect society at large
- To inform how science is taught to K-16
- To inform public conversation on timely topics touching science
- To broadly disseminate scientific advances
- To build support for science & its role in society
- None of these. Other goal: _____

My goal for this communication effort is to:

Using a different color, mark any secondary or related goals you may have for this communication effort.

Revisit your audience profile: how did you answer the *Goals and Motivations* questions, "Why will the audience show up/listen/speak with you? How will the audience use the information?" Copy that information below.

Does your primary goal align with what your audience will likely want out of your interaction? What points of alignment or misalignment do you see? Are there ways that you can reframe your goal to better meet your audiences' needs and goals?

Messaging

Activity: Nonlinear Brainstorming

In order to start focusing on the content of your presentation, it's helpful to do some nonlinear brainstorming.

In the space below, take 5-10 minutes to write down as many ideas about the topic of your communication effort as you can. Aim to write continuously for your entire brainstorming session, and use tools like free association (i.e., write down the first thing that pops into your mind when you look at a word on your page) to help when you get stuck. Don't filter, don't try to organize the content, don't worry about repeating yourself, and don't be critical of what you write down. The point of this exercise is to just collect lots of ideas in one place - you'll come back to this document later in order to develop the structure of your communication effort.

Activity: Half-Life Your Message

Now that you've collected some ideas, it's time to focus in on the core takeaway - or **central message** - of your communication effort. In order to find this takeaway, we'll use a three-minute tool called Half-Life Your Message (HLYM; Aurbach et al., 2018). Half-Life Your Message can be applied either individually or with a partner (sometimes, people find that having a partner assist with HLYM enables them to focus just on the exercise).

1. Find a way to record yourself - apps are available on both smartphones and computers. Start a new file.
2. Find a timing device capable of displaying a second-by-second countdown.
3. Stand up and begin recording.
4. For 60 seconds, speak continuously about the topic on which you just brainstormed. Don't stop, don't filter, and don't judge yourself.
5. Immediately after you finish, reset the timer. Now speak about the same content again, but only give yourself 30 seconds.
6. Immediately after you finish, reset the timer. Speak about the same content again, but take only 15 seconds.
7. Immediately after you finish, reset the timer. Can you communicate your message in just 8 seconds?
8. Stop recording. Write down your 8 or 15 second HLYM version in the space below - this is your *draft central message*. Feel free to review the recording if it helps you to capture the idea accurately.

Now, take some time to reflect on your experience of HLYM. Answer the questions below in the space provided.

Do you *like* the central message which emerged from Half-Life Your Message? Why or why not?

Does your draft central message convey your intended point? If not, why not?

Is your draft central message appropriate for your communication context? Your target audience? Your communication goal? If not, why not?

Note: If you answered "no" to any of these questions, feel free to repeat HLYM with different content. Remember to progress through the entire activity before you judge or evaluate your efforts!

Once you are satisfied with your central message, revisit your nonlinear brainstorm. Group similar ideas together. Cross out ideas which don't directly support your central message. After you've reviewed your nonlinear brainstorm, list out your central message and key supporting points or themes below.

Do your supporting points give rise to your central message? Are you missing any points necessary to make your argument? Are there any others that you can eliminate?

Narrative

Now that you've got your audience profile, goals, central message, and supporting ideas put together, it's time to start working on your narrative structure. To start, we're going to develop a 30,000-foot view of the story you're telling. You can fill in all the details later. Note that your central message should *emerge* out of your narrative - it is not necessary to specifically include it in the structure itself (though you can if it fits!).

While you're probably familiar with the IMRaD (Introduction, Methods, Results, Discussion) structure of most scientific communications (and many scholarly communications in other fields as well!), we're going to simplify the narrative by using an ABTx2 (And-But-Therefore-And-But-Therefore) structure (Olson, 2013, 2015). Note that an ABTx2 structure is fully congruent with IMRaD stories - it just helps to make clear the central tension underlying a scholarly narrative.

Activity #1: Develop an ABT Narrative Structure

To begin to develop your ABTx2 narrative structure, reference your organized brainstorm and your message & supporting points sheet, then answer the following questions with as much or as little detail as you'd like:

The Problem (ABT #1)
Where is your starting point or frame of reference? What assumptions are you making with the story you're telling? What does your audience need to know about your topic in order to understand your argument? What do other people in your field/space assume when your topic arises?

Are there places where these assumptions are wrong? How or where does your starting place fall short? What motivates you to work on this topic in particular? What is the driving conflict or narrative tension to your story?

What must you do in order to address the limitations of assumptions/fields/etc that you see?

If you're posing a challenge or call to action, you can stop here. If in your story, you're also answering the question that you posed, continue with the questions below.

Your Conclusions (ABT #2)
What did you learn from addressing your problem which was in line with your initial assumptions? What did you learn from your research which is broadly congruent with what/how the field thinks about your topic?

What did you learn by addressing your problem which was surprising? Most impactful? Has the greatest capacity to shift thought? Which most challenged your assumptions or understanding of your topic?

What do you think as a result of what you learned? How do you think your field should shift/change/accommodate your new conclusions? How do your conclusions impact the world?

Build Your ABT Narrative
Now, review your answers and summarize the main points in ***at most*** one sentence in the ABTx2 framework:

What do we know?

AND:

What don't we know?
BUT:

What must we do?
THEREFORE:

If you're posing a challenge or call to action, you can stop here. If you're also answering the question that you posed, you should continue with the prompts below.

What reinforced what we already knew or understood?

AND:

What did we learn which was new/innovative/impactful?
BUT:

How does this change the field/world?
THEREFORE:

Reflect

Now, read your 4- or 8-sentence story aloud and take a minute to reflect. Answer the questions below with a sentence or two.

If someone was reading your 4-8 sentence story for the first time, would they have a clear idea of where you're starting and where you're going? Are there gaps? Does it make logical sense and/or flow linearly? Is it a compelling story?

Does your 4-8 sentence story convey your central message? If not, what's missing that is required for you to convey that message? Does your draft narrative structure give you insights into a new message that you might want to communicate?

Sometimes if the ABTx2 doesn't make sense, you have more than one story on your hands. Are there multiple stories that you're trying to tell? If so, try separating them out and writing parallel 4-8 sentence stories for each topic. Are both stories critical for your current communication opportunity? If so, can you tell the stories in sequence (and which would go first?)? If not, which one is most appropriate to tell for your current opportunity? What kinds of opportunities would be good for your other story?

After reflecting, take a moment to consider your draft and make any adjustments to the 30,000-foot map to your story in order to communicate the ideas which are most important to you.

Notice: an ABTx2 structure is largely congruent with an IMRaD structure. The first ABT describes the background, problem, and approach you'll use to address that problem.

The first "AND" is the introduction - it helps to focus the discussion onto only the important pieces of the background. The first "BUT" is the gap which needs to be filled, or the precursor to a hypothesis statement. The first "THEREFORE" outlines that pathway to address the gap (which points to the Methods section, although a Methods description also serves the dual purpose of describing and documenting the approach you used to collect your results and reach your conclusions).

The second ABT structure outlines your findings, conclusions, and interpretations. The second "AND" and "BUT" are your Results section, broken down to categorize your findings according to elements which reinforce what you or your field already understood and components which are particularly impactful, innovative, or surprising. The second "THEREFORE" is all about the major conclusion you've drawn from these findings and how it impacts your field and/or the world - in other words, it's the basis for the Discussion section.

You can iterate by adding new ABTs in order to suggest experiments to fill in additional gaps and structure your "future directions" section. Your conclusions take the place of your starting assumptions, then you point out where they could be limited, and finally suggest an avenue to help make them more impactful.

Next we'll try structuring the *same story* in a different way, using a news-style, inverted triangle structure. This structure puts the most important information in the first few sentences, then unpacks that information according to relative importance.

∑*Activity #2: Develop an Inverted Triangle Narrative Structure*

To begin to develop your inverted triangle narrative structure, reference your brainstorm and your message & supporting points prompts, then answer the following questions with as much or as little detail as you'd like:

The Lede:
What is the who/what/when/where/why/how of your story? (Another approach: what is your central message, including the context, content, and significance?) Is there a hook to grab your audiences' attention that you can reference?

The Body:
What are the key points or arguments that give rise to your central message? What evidence can you provide to back up these points and arguments?

The Tail:
What other interesting and related points might you include that aren't as critical to the main delivery? (Note: this is where you might put "darlings" that you're loathe to eliminate from your piece.)

Build Your Inverted Triangle Narrative
Now, review your answers and summarize the main points in ***at most*** two sentences in the inverted triangle outline:

What? So what? (Lede)

How do we know? (Body)

What else helps us understand or contextualize? (Tail)

Reflect

Now, read your inverted triangle outline aloud and take a minute to reflect. Answer the questions below with a sentence or two.

If someone was reading your inverted triangle outline for the first time, would they have a clear idea of where you're starting and where you're going? Are there gaps? Does it make logical sense and/or flow linearly? Is it a compelling story?

Does your inverted triangle outline convey your central message? If not, what's missing that is required for you to convey that message? Does your draft narrative structure give you insights into a new message that you might want to communicate?

After reflecting, take a moment to consider your draft and make any adjustments to the 30,000-foot map to your story in order to communicate the ideas which are most important to you.

Now that you've developed a 30,000-foot map, it's time to start building the road to get you from the beginning of your story to the end. Revisit your organized brainstorm, the notes from your central message, and your 4-8 sentence story to develop your signposts for your key ideas and how they fit into the sequence of your story. Use no more than 1 sentence for each major point (bullet-point supporting ideas/details below each sentence).

Review your roadmap. Have you included detail that is unnecessary? A common storytelling adage that fiction authors use is the idea of "killing their darlings," or cutting out bits of writing or characters which aren't contributing substantially to the arc of their story. Are there darlings which you can eliminate in your story? Cross anything out that doesn't contribute directly to your message or your story.

Consider Other Elements of Communication

Check Your Language

Now, check to see whether you're using language which is appropriate for your audience. Hemingway (http://www.hemingwayapp.com/) is a great tool to help you with writing style. Another useful tool is the "De-Jargonizer," which can help identify jargon and is available online at http://scienceandpublic.com/ (Sharon & Baram-Tsabari, 2014; Rakedzon et al., 2017). Does this help identify words that you should define or replace? If so, which ones? How would you define or replace these words?

What Visuals Are Needed?

Are there particular concepts or ideas which would benefit from a visual aid to help illustrate your point? (People typically find that complex or abstract ideas frequently benefit from a supporting visual.) Mark them in your drafted content. Sketch a draft of the visual aid in the space below.

Well done! You've got a roadmap for your communication effort!

The next step in this process is to get some constructive feedback. Find a colleague who is willing to read your work (make sure to define your audience and communication context!), then share your drafted narrative structure. Ask them:

1. If you had to summarize your takeaway from my work, what would it be (in one sentence)?
2. Were there parts of my work which were unclear or you didn't understand a connection?
3. What did you like about my work?
4. What could be improved about my work?

Based on this feedback, revise your roadmap below.

Congratulations! You're well on your way to developing your communication effort. What else do you need to do to finish this project? List your ideas below.