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What can we Learn about Research Narratives from Professional Storytellers?

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Abstract

This short note on practice reflects on how “research narrative” is a much-used, but misunderstood term. Compelling stories about our research are important: for public-facing communications and for academic tenure confirmation and promotion. They are also important for researchers to gain a clearer sense of their own vision and values in the research process: they are not just a communication skill, they’re a career skill. But often researchers in STEM disciplines do not have the practical skills to write stories. We draw on our own practice as creative writers to share some simple and effective methods to bring arts expertise into STEM research narratives.

Keywords

research narratives, storytelling, STEAM

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What can we Learn about Research Narratives from Professional Storytellers?

Kim Wilkins & Helen Marshall

We're probably all familiar with the way words such as "narrative" and "storytelling" are used to encourage researchers, especially in STEM, to communicate the value and the impact of their work. As a pair of creative writing academics, we've long been puzzled by precisely what STEM researchers mean when they use these terms, as many research narratives we have seen don't include any of the important elements of story we know from our own work.

This mismatch between how we think of stories, compared to researchers in other disciplines, crystallised for us via our interdisciplinary work, where we help STEM researchers develop their creativity and imagination. In one instance, a senior medical researcher thought storytelling was simply a more descriptive version of a research report; in another, a complicated template was presented, with so few elements of story that the exercise was doomed to fail.

Compelling stories about our research are important: for public-facing communications and for academic tenure confirmation and promotion. But they are also important for researchers to gain a clearer sense of their own vision and values in the research process: being able to tell your story is not just a communication skill, it's a career skill. So as writers with dozens of novels and short stories published between us, here are some tried and true tips for engaging the imagination when writing a research narrative.

Character

A story isn't a story without a character, and in most cases that character is you. Members of your team can also be characters. Characters, just like you, make decisions based on their personal history, their values, and what resources they have access to. A great way to start a research story is with your *back story*. What have you done previously that led you here?

EXAMPLE: My previous research was about the importance of green space in global urban centres, and how they reduce pollutants and help mitigate rising temperatures. From this research, I developed novel methods for enhancing plant efficiency in urban green spaces, and forged promising relationships with urban geographers and social psychologists. It was through these contacts that I discovered a study about the city with the least public green space per resident in the world: Shanghai.

Characters are also personally motivated to make the choices they make in a story. Including your own *motivation* in the story allows you to “start with why” as Simon Sinek tells us. “Why” is highly compelling to readers, as it creates a human connection rather than an abstract connection. Your motivation as a character helps us see the problem through your eyes, and why it's so important that you solve it.

EXAMPLE: Having grown up in a densely populated urban area, I know first hand how important access to high quality green space is. When I read the data on how few children in central Shanghai have access to green space, I recognised an excellent opportunity to connect with my interdisciplinary contacts to understand this problem and contribute to its solution.

Plot

A reader who can envision a problem and the struggles to find a solution is a reader who will be invested in the outcome. In showing the steps, be comfortable describing risk and failure. Research is seldom linear, particularly when addressing wicked problems. It involves dead ends, setbacks, and pivots. These tend to be excluded from research narratives. Impact templates, for example, tend to focus on objectives, methodologies and final results. Yet stories where the plot zigzags (problem, failure, failure, solution) are more compelling than those that appear to progress in a straight line (problem, solution, problem, solution).

EXAMPLE: In encouraging villagers to adopt new health protocols, we began by implementing a region-wide recommendation for mask wearing. But uptake was low, in part because there were language barriers and in part because government officials were treated with suspicion. After our initial attempts failed, we created partnerships with local community leaders who helped to build support for our initiative. Within two weeks, there was a significant uptake, so much so that local seamstresses began to produce homemade masks to distribute to nearby villages.

Voice

Communication is strongest when it helps the reader *engage* with the story. Yet STEM's persistent use of the passive voice obscures important, compelling details. For example, "an experiment was designed" hides the explicit fact that people did the designing. While this is a disciplinary norm in scientific journals, it's better to drop it to engage a general reader. Give your characters agency in your story by putting in names and pronouns of researchers. So, for example, "Along with Professor Architect, I designed an experiment" is a much better way to narrate your research.

Finally, stories can be more compelling when they use creative language to engage the reader's imagination. A little bit of imagery can give your research narrative some zing. These can be fairly low-key images (e.g. instead of "I hoped to create new knowledge" try "I hoped to take a leap forward"); or they can be quite bold (e.g. instead of "I aimed to investigate the phenomenon" try "I aimed to pop the bonnet and observe the problem's moving parts"). Experiment with them and run them past trusted colleagues to make sure they are appropriate and meaningful.

These few practical tips should set you on your way to better, more engaging research narratives.