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Writing as a Science Educator

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Point Of View

Emily Faulconer

Writing as a Science Educator

As scientists, we write to record observations and procedures. We write to analyze and present our data. We write to evaluate the works of others. My training in scientific writing started in earnest as an undergraduate student where I dutifully wrote lab reports and literature reviews. I learned how to write objectively. I practiced evidence-based arguments. After years of practice, this writing style is second nature. I see hints of it in my e-mail communication style. I even hear its echo in my administrative documents. This style is efficient and clear.

Within two years of graduating with an undergraduate degree, I entered the world of education where the writing tasks are not at all like science writing. As educators, we write to document our lesson plans, to provide feedback, and to reflect. I first learned how to plan lessons and design courses by using rubrics and templates. With mentoring, practice, and professional development, this style also became second nature.

Then my worlds collided—I accepted a tenure-track position and was tasked with writing as a science educator. I decided to write a Point of View article for the *Journal of College Science Teaching (JCST)*. I set out to write an insightful perspective on traditional versus online and distance laboratory formats. I did not yet realize it but I had already taken a small step outside of my comfort zone. I was about to fail.

My essay was well researched and organized. It presented a clear perspective on the topic. My essay was rejected because of the “voice” I had written in. The essay read like a miniature literature review because of my approach. I performed a cost-benefit analysis and decided that writing a full-length literature review would be easier than rewriting my essay in a more engaging and personal style (*JCST* does not publish literature reviews; this manuscript was published elsewhere).

To quote the Lebanese poet Kahlil Gibran, “much of your pain is selfchosen.” I submitted not one, but two more essays. I failed two more times, because I still had not learned how to break the norms of science writing that restricted objectivity and sensory language. I was definitively outside of my comfort zone. I wanted to run back to where my failure rate was noticeably lower.

This essay is attempt number four. I was one hour into reading book chapters and manuscripts before I remembered the purpose of the essay and the lesson from my three prior failures. I had to push back against my instinct to use a formulaic assertion-evidence approach. Journal manuscripts use the impersonal third person as if data magically discovered itself. Writing in the first person now feels awkward and too personal. I will not admit how much time I spent correcting my

pervasive use of the clumsy and overcomplicated passive voice. My first draft of this paragraph had four sentences. My first draft of this paragraph had four occurrences of passive voice.

Is it possible that the rigidity in science writing is softening and lines are blurring? A 2016 study of 732 climate change articles found that narrative writing style resulted in more citations and thus a larger impact (Hillier, Kelly, & Klinger, 2016). If that is the case, should not we be teaching our students how to write engaging science narratives? However, you cannot teach what you do not know.

My purpose in sharing this story is to ask you this: Where is your comfort zone as a science educator? Just one step outside of that is where your growth lies.

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Reference

Hillier, A., Kelly, R. P., & Klinger, T. (2016). Narrative style influences citation frequency in climate change science. *PLoS ONE*, *11*(12), e0167983.