

Special issue: Innovative Teaching Personal Essays

When Finance Meets Stories

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During my first year of university teaching, I often lay awake in the middle of the night with paralyzing self-doubt. Yes, I was a new teacher, and there were a lot of pedagogical techniques to learn, but that was not the source of my doubt. I teach insurance mathematics to hundreds of undergraduate students every year. Most of my students aspire to become professionals in the insurance or finance industry upon graduation. I, on the other hand, had left my cushy financial industry job to teach. I had become disheartened to work for an industry of which the public opinion was at an all-time low, following the worst financial crisis since the Great Depression. I wanted a fresh start, to return to a more “innocent” and intellectual space, to do something more “meaningful”.

However, one semester into my teaching, I was no longer sure I made the right choice. The influence of the industry on financial education is palpable in the course curriculum and syllabi. To my further dismay, my survey with entry level students in my program showed that most students came to the major because they believed “the money is good” once they turn professional. Many also cited parental pressure in selecting the major, as parents become increasingly concerned about their children’s economic future. Very few mentioned that they had a genuine interest in the subject matter. When asked about the ethical issues facing the financial

industry, most students responded that they would not be very interested in learning about them. In my further informal conversations with students, a general thinking pattern emerged – it is not that they do not understand the ethical issues in their future profession, but they have accepted that it is the way business is done, and there is very little they as individuals can do to change the landscape.

I remember feeling this vague sense of helplessness while working in finance. But is it really true that in order to pursue finance as a career, we must decouple our moral lives and our life's work?

One of the first courses I was assigned to teach was a large-classroom, introductory course on life insurance mathematics. Traditionally, instructors used a thick question bank with summaries of math concepts. Students were taught to view the course materials as strictly mathematical and devoid of real-life connections. They learned tricks to solve multiple-choice questions and a list of formulae to memorize. A lack of genuine interest in the subject matter, the large amount of math concepts and formulae to absorb, and the traditional mode of rote learning had contributed to frequent complaints of stress and burnout among students.

Desperately trying to revamp the course, I started to read pedagogical literature from various disciplines. I encountered narrative medicine used in medical schools (Greenhalgh and Hurwitz, 1999; Bhavaraju and Miller, 2014; Burack-Weiss, 2017) and was intrigued by the approach. Successful implementation of narratives in medical education had significantly improved students' engagement with the learning materials, and more importantly, helped them develop a higher level of empathy for patients. I was eagerly looking for a way to link my course materials back to something students can relate to, something they will care about and find meaning in. I knew I had to incorporate stories into the mathematical abstraction.

What kind of stories may give students a sense of purpose? First, there need to be characters they can relate to. Second, what would be a better way to find meaning than helping someone in need? So I went back to my many informal conversations with students. The vast majority of them either came from Asia as international students or are children of immigrant parents. So I decided to make my central character a Chinese-Canadian young woman. I tried to make her as real as possible – she often felt caught in between cultures; she struggled with mental health issues when parental pressure became unbearable. To tie in with life insurance, she was also a single mother who had to confront the daunting task of finding a fairly priced life insurance policy to protect her infant son. Our course became an obstacle course, and my students used their newfound knowledge to help the protagonist advance. Every mathematical concept was introduced in the context of her journey.

To better deliver the narrative script I had written, I was on the lookout for a suitable collaborator. Thankfully, my university has an active network for teachers and pedagogical scholars. Through one of the events, I encountered Digital Dramaturgy Lab (DDL) situated in the theatre department, which seemed to have a special interest in pedagogical projects. I contacted the lab shortly after and described my initiative. As luck would have it, DDL had been working for a year on a large creative project inspired by the Zen play “Between Life and Death” written by the Chinese-French playwright Gao Xingjian. As part of their dramaturgical investigations around the theme, they had become interested in – among other things – the fear of death and the concept of life insurance. Working with me would allow them to learn about how life insurance is taught at our own university. They cherished the cross-disciplinary learning opportunity and offered to work on the project free of charge. Together we developed a mix of video and audio clips to tell the story. Each lecture of mine became a story-telling session. After each lecture, I

wrote blog posts to further tie the mathematical concepts with the narratives. The mixed media platform was chosen to recognize that students have distinctively different learning styles – even more pronounced in a large classroom setting – and instructors need to be conscientious about presenting the materials in ways that accommodate different students, what my theatre colleagues call “a choreography of attention”.

It took a year to design the new pedagogy and since then I have implemented the narrative approach for two years. The exit reviews showed encouraging results. The vast majority of the students (78%) said they shared the perspectives of the central character. Most said the choice of the character helped them develop a deeper purpose for learning the course materials. They also praised the narrative approach for helping them create an intuitive concept map that linked together otherwise dry math concepts. I felt the happiest when a few students made a point to come to my office and told me that thanks to the overarching story in this course they now understood they could do good with their knowledge and had found intrinsic motivation in their studies.

Of course, there have also been dissenting voices. Two categories of dissent emerged. A small group wondered whether the time “wasted” in telling the story can be better used to go through more test bank questions. Another even smaller group told me that as white male students, they could not relate to the central character’s struggle and therefore were less affected by the story or the teaching strategy. Although I cannot accommodate every student to the same degree, nor can I expect everyone to enjoy the new approach, I make an effort to respond to criticism in future implementations. I now communicate my pedagogical thinking from day one of my course, so that students can better understand my objectives and expectations. I fine-tuned the story to involve more diverse roster of characters. I invite students to talk to me with their

individual concerns and reservations. I am also keenly aware of a difference between education and finance – unlike the cutthroat financial world where maximizing the *current* shareholders' value is still being upheld as the be-all-and-end-all, the “return” of educational efforts may take years or even decades to manifest. All we educators can do is to plant the best seeds and cross our fingers for healthy, solid sprouts in the near or distant future.

Looking back, I am humbled by my good fortune – finding inspirations in the pedagogical literature, locating perfect collaborators, having the opportunity to try and tweak the new approach in my course offerings. When I present this pedagogical experiment to other instructors, I was often asked whether I would have done it without the chance encounter with DDL. My answer is a resounding yes. But I would likely need to apply for the various pedagogical grants the university offers. And it would have been a steeper learning curve for me, and likely a longer and more arduous journey. However, all the work would be worth it seeing how much more engaged my students are, and how the course helps them find the deeper meaning and purpose of learning.

References

- Bhavaraju, V. and Miller, S. (2014). Faculty Development in Narrative Medicine: Using Stories to Teach, Learn, and Thrive. *Journal of Graduate Medical Education*, 6(2), pp.355-356.
- Burack-Weiss, A. (2017). *Narrative in Social Work Practice*. New York, NY: Columbia University Press.
- Greenhalgh, T. and Hurwitz, B. (1999). Narrative based medicine: Why study narrative?. *BMJ*, 318(7175), pp.48-50.