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Teaching through storytelling: using TED-Ed lessons for science communication

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Extended Abstract

An under-developed and important skill for our biology students is the ability to clearly communicate science to people without a science education. Storytelling organizes a narrative about a scientific topic that is easier to comprehend and more engaging than more technical presentations of information. Traditionally, narratives describe cause and effect relationships over a set time period, and feature a cast of characters. Research on this topic reports that narratives are read twice as fast and recalled twice as well as expository text, regardless of familiarity or interest in the content. Additionally, narratives are beneficial for processing information including motivation and interest, allocating cognitive resources, elaboration and memory. Narratives are also how our students often receive scientific information, through their news, entertainment, and social media networks.

TED-Ed lessons are short animated videos on a wide variety of topics that use the power of storytelling for educational purposes. These videos are wonderful tools for the classroom, and they also provide a model for how storytelling can enhance science education. The purpose of this workshop was to use the TED-Ed model as scaffolding for student presentations.

Presenters shared how they have successfully used TED-Ed lessons in the classroom, as well as their personal experience in publishing with TED-Ed. Workshop participants will work in small groups to prepare a TED-Ed style narrative on an assigned topic typically covered in an introductory biology course. The goal of this project is to synthesize scientific information into a format that is easily understood by the general public. Participants were given forty-five minutes to craft a creative narrative, and share among their workshop peers. This exercise has been used in non-majors biology courses, where students reported that they gained a better knowledge of their topic and the topics presented by their peers. discussed how this can be modified for online instruction.

Keywords: TED-Ed, storytelling, science communication, student presentations

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