The lecture is not dead: using storytelling to enhance lectures

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### Pedagogical buzzwords

Active learning

Student directed learning

### Problem based learning

Flipped classrooms The Washington Post Democracy Dies in Darkness

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Answer Sheet . Analysis

# It puts kids to sleep – but teachers keep lecturing anyway. Here's what to do about it.



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#### Points of View: Lectures: Can't Learn with Them, Can't Learn without Them

Talking Biology: Learning Outside the Book—and the Lecture

Daniel J. Klionsky

Published Online: 13 Oct 2017 https://doi.org/10.1187/cbe.04-07-0055

Heinemann; Eighth Printing edition (March 15, 2000)

### Complaints about lectures

- 1. They are outdated, antiquated
- 2. They promote passive learning
- 3. A student scribbling down notes is not learning
- 4. It doesn't require complex thinking
- 5. The transmit facts but nothing more

Lecturing is the oldest and *still the most commonly used* teaching method in higher education – it is practical and efficient, particularly in large class sizes



## Over 3,500 TED Talks with over 3 billion annual views

# Reframe the question

Instead of asking,

"How do we replace lecturing in the classroom to enhance learning?",

let's ask

"How can we enhance lectures to improve learning?"

# Why do you lecture?

# Why do I lecture?

- 1. Introduce a concept
- 2. Provide background information
- 3. Highlight the problems
- 4. Provide historical overview
- 5. Highlight the journey in scientific developments, not just the discovery
- 6. Provide a bigger picture overview that helps the importance sink in
- 7. It "gets to the heart of why a lesson is worth learning"
- 8. Get them excited about the content
- 9. Open their eyes to new questions, help them see connections between ideas, and provide new perspectives they may not have considered

# The Power of Stories

Throughout history, stories have been an effective way of transmitting not just information but also values and attitudes to an individual or to a community.

# What stood out in the TED Talk?



# From a biological standpoint, stories move us forward in three major ways:



# HOW STORYTELLING AFFECTS THE BRAIN

#### NEURAL COUPLING

A story activates parts in the brain that allows the listener O to turn the story in to their own ideas and experience thanks to a process called neural coupling.

#### MIRRORING Listeners will not only experience the similar brain activity to each other, but also to the speaker.

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#### DOPAMINE

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The brain releases dopamine into the system when it experiences an emotionally-charged event, making it easier to remember and with greater accuracy.

#### CORTEX ACTIVITY

When processing facts, two areas of the brain are activated (Broca's and Wernicke's area). A well-told story can engage many additional areas, including the motor cortex, sensory cortex and frontal cortex.

### Storytelling improves learning

- 1. Learning is more than just facts. It is having *mental organization*, a framework of understanding. This is what facilitates retrieval and application of knowledge.
- 2. One needs to develop their own way of thinking, build on their own prior knowledge, and *construct their own framework* to truly learn and form long lasting memories.
- 3. Short-term and working memory has limited capacity.
- 4. Reducing cognitive load improves learning.

### The value of storytelling in the classroom

# STORYTELLING

#### boosts learning in the college classroom

#### STORYTELLING

- Creates a stronger connection with students
- Relaxes students and lowers barriers
- Engages and holds the learner's attention
- Gives difficult concepts real context
- Makes facts more memorable
- Encourages students to share their own experiences

Stories exist in

every culture



STORIES multiple areas of the brain are activated

Whether the story is HEARD, READ, OR WATCHED our brains are activated just the same

Sagepub.com

### Using stories in the classroom

- 1. Have a beginning, middle, and end.
- 2. A good story has a good hook, a strong opening.
- 3. Have a theme.
- 4. Keep it simple. Don't try to include too much information. Reduce it down to a nugget that can be remembered.
- 5. Try to include emotional hooks.
- 6. Be relatable, make real life connections.
- 7. They work at any time during a class period.
  - a. At the beginning, it sets up interest and intrigue, helps them see from the very beginning why what they're about to learn is important
  - b. In the middle, it helps students make connections with concepts they just learned
  - c. At the end, it summarizes and puts concepts into a greater context
- 8. As the storyteller, you are performing. Make eye contact, move your body around, pause occasionally for effect –give them a chance to think about what you've just said
- 9. Not everything needs to be a story.



# Storytelling is *just one tool* in the instructional toolbox that can be a part of a larger sequence of instruction



THINK OF YOURSELF LESS AS A TEACHER AND MORE AS A DESIGNER OF MEANINGFUL EXPERIENCES.

NORMAN ENG



# Thanks

*Do you have any questions?* Email me at kfphill@vt.edu



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