



# Storytelling

"We tell ourselves stories in order to live." - Joan Didion, *The White Album*

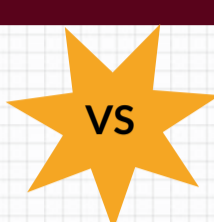
**Overview** One effective, evidence-based strategy for facilitating learning is delivering content in the form of a story rather than through a more traditional lecture format. Though not a replacement for active learning, storytelling is a useful alternative to lecture when it makes sense to present information to students prior to active learning.

## STORYTELLING

### Lecture

looks like ...

"And with this simple, powerful tool [the Galilean telescope], we can see many details when we use it to look up into the night sky. The moon may look like a smooth ball of light covered with dark spots, but on a closer look through this telescope, we can see dark valleys and great mountain ranges. Through the telescope, we can now see all the different marks on the moon's surface."



### Storytelling

looks like ...

"When Galileo looked through his new telescope, he could see the surface of the moon, and so he began his first close look into space. He slept during the day to work and see the moon at night. Many people thought that the moon was a smooth ball with a light of its own. Now that Galileo had a closer look through his telescope, he realized that the moon's surface had mountains and valleys."

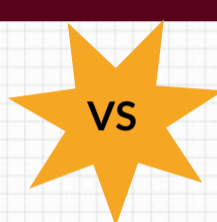


Arya, D. J., & Maul, A. (2010). The Role of Scientific Discovery Narrative in Middle School Science Education. *Journal of Educational Psychology*, 104(4).

## PUTTING IT INTO PRACTICE

### Lecture

"The 'Dewey Decimal System' was created by a librarian named Melvil Dewey as a way to organize information in libraries. It breaks down books in the library into ten different classes corresponding to a particular subject, which are further broken down into subcategories. For example, if your book's call number is in the 150 range, you know it's a psychology book. This is useful because it organizes all the books on the shelves together by topic, so when you go to find your book, you can browse the shelf to find other books on similar topics right next to it. So it's a really useful system, and this is why it's often used in libraries"



### Storytelling

"To highlight the importance of having an organizational system that helps us easily find information, let's look at a possible alternative. One day, when I came home from grad school, I found that my partner had rearranged all our books by the color of their spines. Orange with orange, blue with blue... It looked cute, but not very useful, because it'd never occurred to me that I may someday have to know the color of my book's spines to be able to find them! So something like this is actually why we use these numbers in the library. They're part of the Dewey Decimal System, named after Melvil Dewey, who was a librarian working at a college library in Massachusetts in the late 1800s..."



#### Practice Tip

*Empathy is key to storytelling: as narrator, try putting yourself in the shoes of the problem solver.*

## WHY IT WORKS

Research indicates that information is more likely to be retained when that information is presented in the form of a story.

Educational psychologist Daniel Willingham writes that **The human mind seems exquisitely tuned to understand and remember stories - so much so that psychologists refer to stories as 'psychologically privileged,' meaning that they are treated differently in memory than other types of [non-narrative] material.**

Willingham, D. (2009). *Why Don't Students Like School?: A Cognitive Scientist Answers Questions about How the Mind Works and What it Means for the Classroom*. San Francisco: Jossey-Bass.

## HOW IT WORKS: MEMORY, LEARNING, & THE BRAIN



#### Working Memory

The part of the brain that engages with what one is currently thinking about or experiencing in the present.



#### Long Term Memory

The part of the brain where information is stored for later use and retrieval.



#### Learning

When a piece of information goes from a learner's working memory to long term memory, that information is successfully retained.



#### Learning Science

*Storytelling helps learners' brains transfer presented information from working to long term memory more successfully than lecture.*

## REFERENCES & FURTHER READING



- Arya, D. J., & Maul, A. (2010). The Role of Scientific Discovery Narrative in Middle School Science Education. *Journal of Educational Psychology*, 104(4).
- Boyd, B. (2010). *On the Origin of Stories: Evolution, Cognition, and Fiction*. Cambridge, MA: Harvard University Press.
- Klipfel, K. M., & Cook, D. B. (2017). *Learner-Centered Pedagogy: Principles and Practice*. Chicago: American Library Association.
- Mayer, R. E., & Wittrock, M. C. (2006). Problem Solving. In *Handbook of Educational Psychology* (pp. 287-304). London: Routledge.
- Willingham, D. (2009). *Why Don't Students Like School?: A Cognitive Scientist Answers Questions about How the Mind Works and What it Means for the Classroom*. San Francisco: Jossey-Bass.

