Coffee Conversations Feature Article

Keys to Retention: Is there Life Outside of Cramming?

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It can be discouraging when information we teach is not retained. I teach medicine where remembering a concept can be life or death for a patient; long term memory is crucial. John Medina, in his book "Brain Rules", states 90% of what students learn in class is lost within 30 days. In fact, much of it is lost within the first hour of them leaving class. Students seem quite adept at memorizing information short term for the exam, but remembering key concepts long term is a struggle.



Discussing tools to improve long term retention of material, Medina mentioned the first few seconds we are exposed to information are crucial to whether something is remembered or not. Lecture introductions can make the difference between concepts being remembered long term or quickly forgotten. Spending time to make introductions grab students' attention will pay off. Incorporating real world stories is one way to make introductions improve retention. The more examples you use the better and the more they connect with your stories personally the better the information sticks. This requires us to engage in current culture in a new way, finding relevant examples with which students relate. We may need to become more familiar with current events affecting their culture, popular artists and celebrity figures, technology, etc. Finding personal meaning in a story improves the students' chance of moving that information to long term memory.

Additionally, students must fully understand the meaning behind concepts or they won't be able to remember them long term. It's important to not only teach concepts but also the meaning behind them. For example; if I tell my student not to give a medication in the vein but do not explain why, they will not likely remember this fact. Alternatively, if I tell a story about the horrific outcomes when this medication was given in the vein, they are likely to remember this concept.

Once we give an attention grabbing introduction, articulate meaning, and allow students to make information meaningful with personal examples, we should consider the importance of repetition. It's easy to focus on the many concepts that need covered and forget students must hear things more than once for them to be committed to longer term memory. Medina refers to repetition as the fixative of memories. The more times students are exposed to a concept the more likely they will fix the information in the brain. We should look for key concepts in a lecture and repeat these several times to ensure the material is retained.

We can overcome the cramming mentality without students realizing what we have done! Grabbing their attention in the first 30 seconds, embedding meaning with personal stories and solidifying with repetition will help us race past short term memory and land in the long term! For more information on these concepts and more, you may enjoy reading John Medina's book "Brain Rules".

References

Medina, J. (2014) *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home and School.* Seattle, WA: Pear Press.