

What Key Concepts Improve Student Learning and Memory?

Presented by:

Kristin Roush, Ph.D.

The "Lighthearted Professor" and Distinguished Faculty award winner, and owner/writer of the self-development blog, Moved and Shaken, has taught Psychology at Central New Mexico Community College for over 20 years. Her graduate degrees are in College Student Personnel Administration, and Counseling and Educational Psychology. Her reputation as a humorist, storyteller, and dispenser of "free therapy," cause her classes to fill in minutes with waitlists every semester. Dr. Roush has a passion for college students, for encouraging each and every one of them to discover their uniqueness and value. Kristin brings a unique perspective to our conference as both a student services professional and as a faculty member. Come prepared to relax, laugh a little, learn a lot, and walk away changed. She crashed her car into the bridge and she didn't care.



©2016 Magna Publications Inc.

What Key Concepts Improve Student Learning and Memory?



Copyright © 2016 Magna Publications

Presenter

Kristin L. Roush, Ph.D.

Central New Mexico
Community College



2

Four Misconceptions About Learning

1. Learning is fast.

SPEED



3

Four Misconceptions About Learning

2. Knowledge is composed of isolated facts.



4

Four Misconceptions About Learning

3. Being good at a subject is a matter of inborn talent rather than hard work.



5

Four Misconceptions About Learning

4. Multi-tasking is an effective asset.



6

The Psychology of Teaching: Five Learning and Memory Concepts to Maximize Success

1. Cueing
2. The Testing Effect
3. Semantic Encoding
4. Peer Teaching (Rehearsal)
5. The Spacing Effect



Cueing

- Brief and incidental pre-exposure to material
- Improves later comprehension and retention
- Quick overview on first day of semester
- Begin each chapter or module



The Testing Effect

- Reading and re-reading is a common mistake among well-intentioned students
- Much like in sports, practicing your exact event maximizes your actual event performance
- Taking a practice test and *getting the wrong answers* is still effective for learning



Semantic Encoding

- “Encoding” is the process of taking in information for storage and later retrieval
- The most effective type of encoding is called “semantic encoding”
- We understand and retain better, information that is novel or personally meaningful



10

Peer Teaching (Rehearsal)

- You really don't understand the material until you can correctly teach it to someone else
- Teaching material to others improves one's memory of the content and serves as another source of rehearsal for the recipient.



11

The Spacing Effect

- Material is retained better if it is studied in short intervals spread out across time
- Five study sessions of 30 minutes each is more effective than studying for one four-hour session



12

Quick Review

1. Cueing
 2. The Testing Effect
 3. Semantic Encoding
 4. Peer Teaching (Rehearsal)
 5. The Spacing Effect
- ❖ Notice that this Review slide is “Rehearsal” 😊



13

An Example of How I Use These Concepts to Teach a New Module

1. Students receive a comprehensive study guide on the first day of the semester
 - A random selection of terms have a short phrase definition included, and students always study terms before they are covered in class, a processes known as cueing



14

Application Example (cont'd)

2. Administer a preview test of the same type and length as the actual test, and encourage students to use the study guide to find answers
 - This incorporates cueing and the testing effect



15

More About Cueing and Rehearsal

- Go over the correct answers with a *short* explanation of why each is correct. This serves as cueing and as rehearsal



16

Application Example (cont'd)

3. During the lecture portion of covering material, use real-life examples and lots of stories that are novel, humorous, and relatable

- This utilizes semantic encoding



17

More About Semantic Encoding

- Students are encouraged to work in pairs to generate their own real-life examples
- Students include all examples in their notes, and report greater success at the time of taking the test



18

Application Example (cont'd)

4. During the lecture portion of covering the material, stop and have students take turns explaining the material to their partners

- This utilizes peer teaching, which is an opportunity for rehearsal for both parties



More About Peer Teaching

- Paraphrasing a short section from the textbook aloud converts passive learning into active learning
- It also incorporates rehearsal, which improves long-term memory
- It's a great self-assessment to see how well you know the material



Application Example (cont'd)

5. Encourage students to plan for shorter, more frequent study sessions spaced out across the entire interval between tests

- This is the spacing effect, a concept to cover on the first day of the semester



Summary

These five concepts, cueing, the testing effect, semantic encoding, peer teaching, and the spacing effect, taken together, are powerful tools to maximize student learning and memory.



22

How Can I Help?♪

Consulting Speaking Workshops♪

“The Lighthearted Professor: Positive Psychology for the Master Teacher” ♪

And many other titles... ♪
please check out:♪



www.MovedandShaken.com♪

Kristin L. Roush, Ph.D. KristinLR@aol.com♪



23



Thank you!

Tell us what you think:

 <https://www.surveymonkey.com/s/LearnMemory24>
