GEOG 491/891: Special Topics - Spatial Analysis in R

Week 8.01: Geometry, data structures, and the flipped classroom

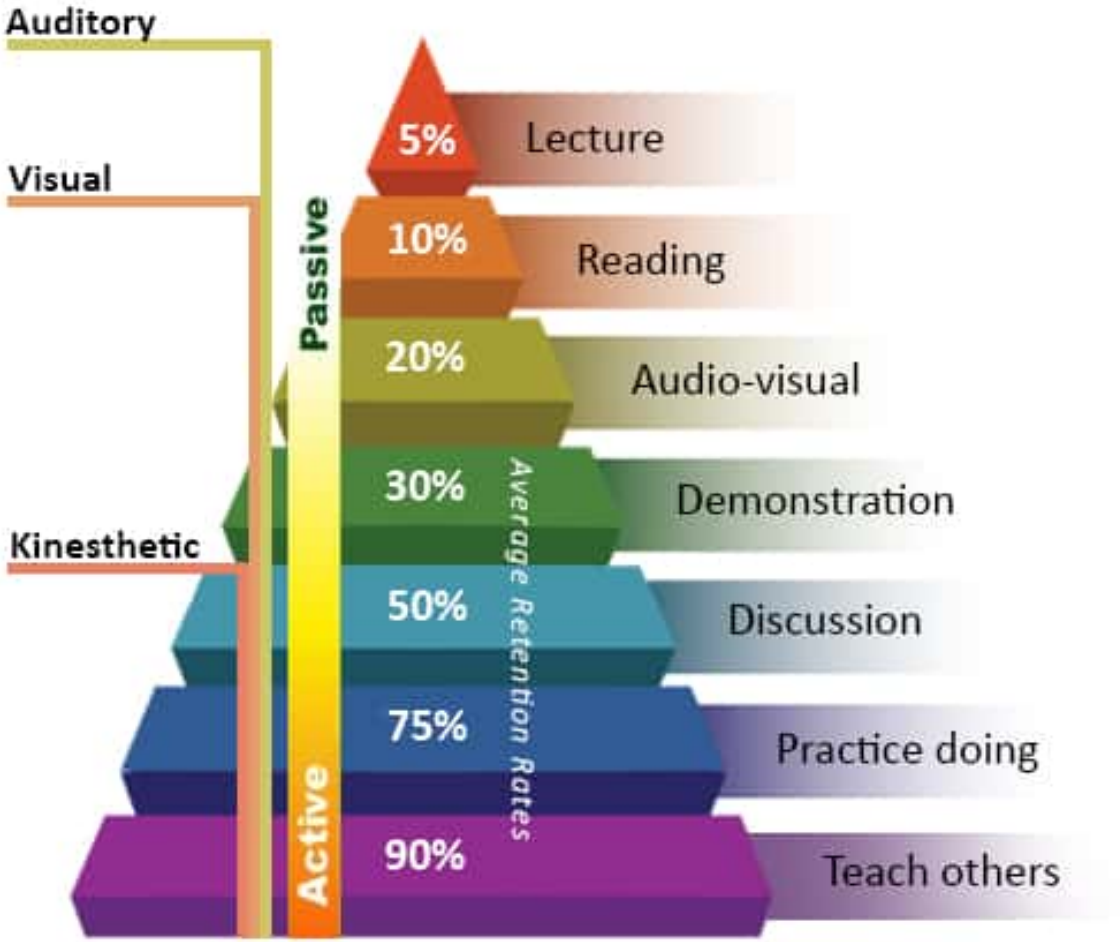
Dr. Bitterman

Today's schedule

- Open discussion
- Something different
- For next class

Anything to discuss? Questions?

How do we (and you) learn best? Thoughts?



Adapted from the NTL Institute of Applied Behavioral Science Learning Pyramid

(in full disclosure, there are counterarguments to this pyramid)

This week's activity

- You all read (or should have) Chapter 5 from Lovelace (https://geocompr.robinlovelace.net/geometric-operations.html)
- Instead of me providing you with a step-by-step walkthrough of the readings, **you're** going to do the teaching
- A quasi-"flipped classroom"

What to do

- Form small groups (I've assigned the groups)
- Each group will be assigned a topic (or topics) from this week's readings
- Your tasks:
    - Develop a short lesson demonstrating the method(s)
    - Include:
        a. Learning objectives (what students will learn)
        b. Why the concepts/methods are important/relevant
        c. How a student would accomplish the task(s)
        d. A way to check for learning (and teaching != learning)

All relevant resources can be found in the Lovelace chapter, but use what you think is relevant

What you can use

- Anything
  - Web resources
  - Sample data
  - Whatever format you want (e.g., PowerPoint, R Markdown, something else)

Tasks and teams

Creating geometry and type transformations

- Bailey
- Iksoon

Simplify, scale, shift, and rotate geometry

- Andy
- Uzma

Raster aggregation, disaggregation, and resampling

- Jason
- Kun-Yuan
- Kidus

For this week

- Wildcard Friday is no-class Friday
- Chapter 5 from Lovelace (https://geocompr.robinlovelace.net/geometric-operations.html)
- Practice, practice, practice
- Lab 02 - keep working
- Work on your projects (in-class updates on 10/29)