Data Types and Data Analysis

Schedule

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| 8:30 | Questions on Watershed lab | 10 min |
| 8:40 | Go over Saturday plan   * Questions * Logistics * Leave Harvill 8:30 * Arrive MG around 9:30 * Driving vs taking the van * NEEDS: * Food, water, snacks * Clothes, good shoes, boots * Cameras, notebooks | 15 min |
| 8:55 | Lecture chunk #1, Data Types.   * Open Qs for each type | 10 min |
| 9:05 | Lecture chunk # 2, Descriptive stats.   * Open Qs on each slide | 10 min |
| 9:15 | Descriptive stat Activity   * 5 for doing * 5 for reviewing | 10 min |
| 9:25 | Lecture chunk #3, Basic stats   * Open activity with correlation * Open Qs on Causation | 10 min |
| 9:35 | Pair up and begin lab assignment | 75 min |
| 10:50 | End of class period |  |

Learning objectives

* Differentiate the 4 different types of data if given an example
* Identify which type of data you are working with
* Be able to calculate a descriptive statistic that is meaningful for a given type of data
* Differentiate and define mean, median, mode.
* Calculate mean, median, and mode for a given dataset
* Define standard deviation in simple terms
* Asses strong vs weak correlation
* Interpret the direction of a correlation
* Briefly discuss (with an example) why it is often said that correlation does not equal causation
* Interpret a regression (in basic terms and concepts)
* Calculate a regression equation and R2 in excel [Lab activity]
* Define the purpose of performing a t-test