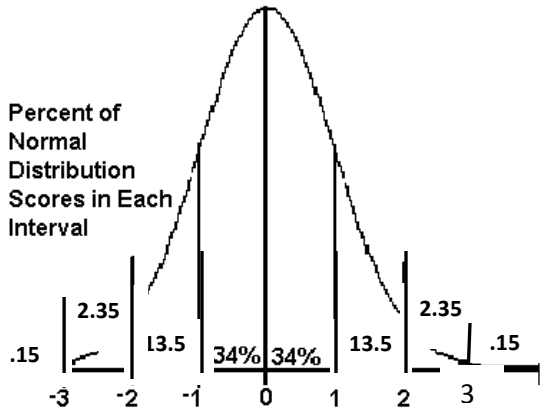
Methods Review

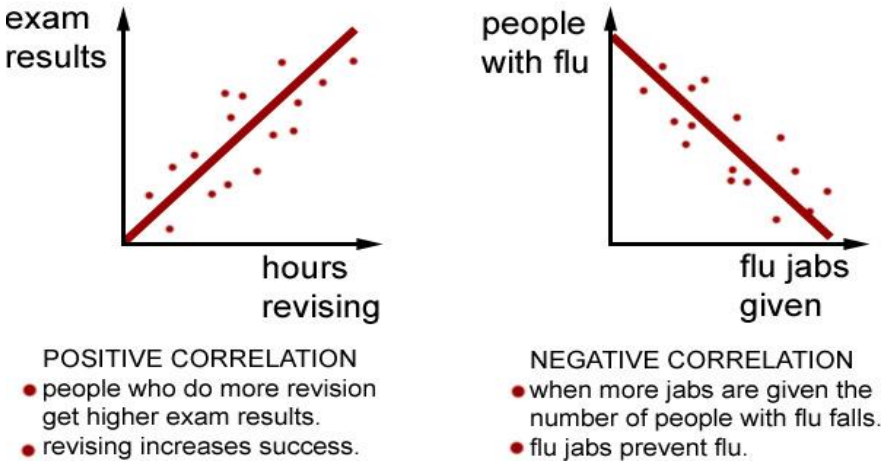
1. **Central tendency:** *average or most typical scores of a set or research data or distribution*
2. **Confounding variables:** *factors that cause differences between the experimental group and the control group other than the independent variable*
3. **Control group:** *the comparison group*
4. **Correlation coefficient (r):** *a statistical measure of the degree of relatedness or association between two sets of data that ranges from -1 to +1*
5. **Demand characteristics:** *clues participants discover about the purpose of the study that suggests how they should respond*
6. **Dependent variable (DV):** *the behavior or method process that is measured in an experiment or quasi-experiment*
7. **Descriptive statistics:** *number that summarizes a set of research data obtained from a sample*
8. **Double-blind procedure:** *research design in which neither the experimenter nor the participants know who is in the the experimental or control group*
9. **Experimental group:** *the subgroup of the sample that receives the treatment or independent varibale*
10. **Experimenter bias:** *a phenomenon that occurs when a researcher's expectations or preferences about the outcome of a study influence the results obtained*
11. **Frequency distribution:** *an orderly arrangement of scores indicating the frequency of each score or group of scores*
12. **Hypothesis:** *prediction of how two or more factors are likely to be related*
13. **Independent variable (IV):** *the factor the researcher manipulates in a controlled experiment*
14. **Inferential statistics:** *statistics that are used to interpret data and draw conclusions*
15. **Longitudinal Study:** *Something is studied over several years or decades.*
16. **mean:** *the arithmetic average of a set of scores*
17. **median:** *the middle score when a set of data is ordered by size*
18. **mode:** *most frequently occurring score in a set of research data*
19. **Normal distribution:** *bell-shaped curve that represents data about how lots of human characteristics are dispersed in the population*



20. **Operational definition:** *a description of the specific procedure used to determine the presence of a variable*
21. **Percentile score:** *the percentage of scores at or below a particular score*
22. **Placebo:** *a physical or psychological treatment given to the control group that resembles the treatment given to the experimental group, but contains no active ingredients*
23. **Placebo effect:** *a response to the belief that the independent variable will have an effect, rather than the actual effect of the independent variable, which can be a confounding variable*
24. **Population:** *all of the individuals in the group to which the study applies*
25. **Quasi-Experiment:** *Similar to experiment, but lacks the element of random assignment to treatment or control. (ie: if the IV is gender.)*
26. **Random assignment:** *division of the sample into groups so that every individual has an equal chance of being put in any group or condition*

27. **Random selection:** *choosing of members of a population so that every individual has an equal chance of being chosen*
28. **Range:** *the difference between the largest score and the smallest score*
29. **Reliability:** *consistency or repeatability of results*
30. **Replication:** *repetition of the methods used in a previous experiment to see whether the same methods will yield the same results*
31. **Sample:** *the subgroup of people from the larger population you wish to study*
32. **Single-blind procedure:** *research design in which participants don't know whether they are in the experimental or control group*
33. **Standard deviation (SD):** *measures the average difference between each score and the mean of the data set*
34. **Statistical significance (p):** *the condition that exists when the probability that the observed findings are due to chance is less than 1 in 20 (p<.05) or less than 1 in 100 (p<.01)*
35. **Statistics:** *a field that involves the analysis of numerical data about representative samples of population*
36. **Theories:** *organized sets of concepts that explain phenomena*
37. **Type I Error:** *When there is a claim of a relationship when there is none.*
38. **Type II Error:** *When there is no claim of a relationship when there is one.*
39. **Validity:** *the extent to which an instrument measures or predicts what is supposed to measure or predict*
40. **Variability:** *the spread or dispersion of a set of research data or distribution*
41. **Z-score:** *A z-score is essentially a conversion of a score to a standard deviation. For example, a z of +1.00 means that the score is 1 standard deviation unit above the mean, whereas a z of -1 means it is 1 standard deviation unit below the mean. (Used when comparing different types of information, such as ACT and SAT scores.)*

Correlations:



APA guidelines for animal research?	*1. must have clear scientific purpose 2. humane care for animals* *3. animals must be trapped or bought legally 4. suffering must be minimized*
APA guidelines for human research?	***No Coercion** – Participation must be voluntary* ***Informed consent** – They must know that they are involved in research and give their consent. If they are deceived, what they DID consent to must be similar to actual study.* ***Minimize trauma.*** ***Anonymity/confidentiality/privacy*** ***Consider and minimize risk** – mental and physical safety* ***Debriefing procedure** – afterward, participants must be told of purpose of study and be able to contact researcher about results*