

Research in the Social Sciences

*** All sciences (including social sciences) rely on empirical evidence (information we can verify with our senses)**

Write this
Down

Common Sense vs. Evidence

- * “Poor people are far more likely than rich people to break the law.”

Common Sense vs. Evidence

- * “Poor people are far more likely than rich people to break the law.”
- * Research shows prosecutors treat the wealthy more leniently

Common Sense vs. Evidence

- * “Canada is a middle class society in which people are more or less equal.”

Common Sense vs. Evidence

- * “Canada is a middle class society in which people are more or less equal.”
- * 4.8 million Canadians live below the poverty line

Common Sense vs. Evidence

- * “Differences in behavior of females and males are just human nature.”

Common Sense vs. Evidence

- * “Differences in behavior of females and males are just human nature.”
- * Most gender differences are caused by social constructs

Common Sense vs. Evidence

- * “Most People marry because they are in love.”

Common Sense vs. Evidence

- * **“Most People marry because they are in love.”**
- * **In many societies, marriage has very little to do with love**

- * Social science uses the systematic observation of behavior to base conclusions.



* 5 Steps in the Scientific Method:

* 1) Identify a problem

* 2) Develop a hypothesis

* 3) Gather Data

* 4) Analyze the Data

* 5) Draw conclusions



Write this
Down

Practice Developing Hypothesis

- * Anthropology

- * Social Issue: Does North American culture create a culture of academic cheating and plagiarism because of their lack of value in education?

Practice Developing Hypothesis

- * Psychology

- * Social Issue: How do males and females differ in their deviant behaviors?

Practice Developing Hypothesis

- * Sociology

- * Social Issue: What common characteristics are present in female bullies (relational aggression)?

Variables and Measurements

- * **Variables:** Concept whose value changes from case to case
- * **Measurement:** Procedure for determining the value of a variable



Write this
Down

Variables and Measurements

- * The experimenter manipulates the independent variable (IV) to see what affect it will have on the dependent variable (DV)



Write this
Down

Variables and Measurements

- * **Extraneous variables are variables that could have an impact on the DV. You have to try and put in controls to eliminate extraneous variables**



Write this
Down

Variables and Measurements

- * If an extraneous variable does impact the result it is known as a **confounding variable**



Write this
Down

Cause and Effects

- * **Cause and Effect:** relationship in which changes in one variable causes change in another



Write this
Down

Cause and Effects

*** Correlation: Relationship in which two variables change together**



Write this
Down

Cause and Effects

- * **Spurious Correlation:** an apparent but false relationship between two or more variables that is caused by some other variable

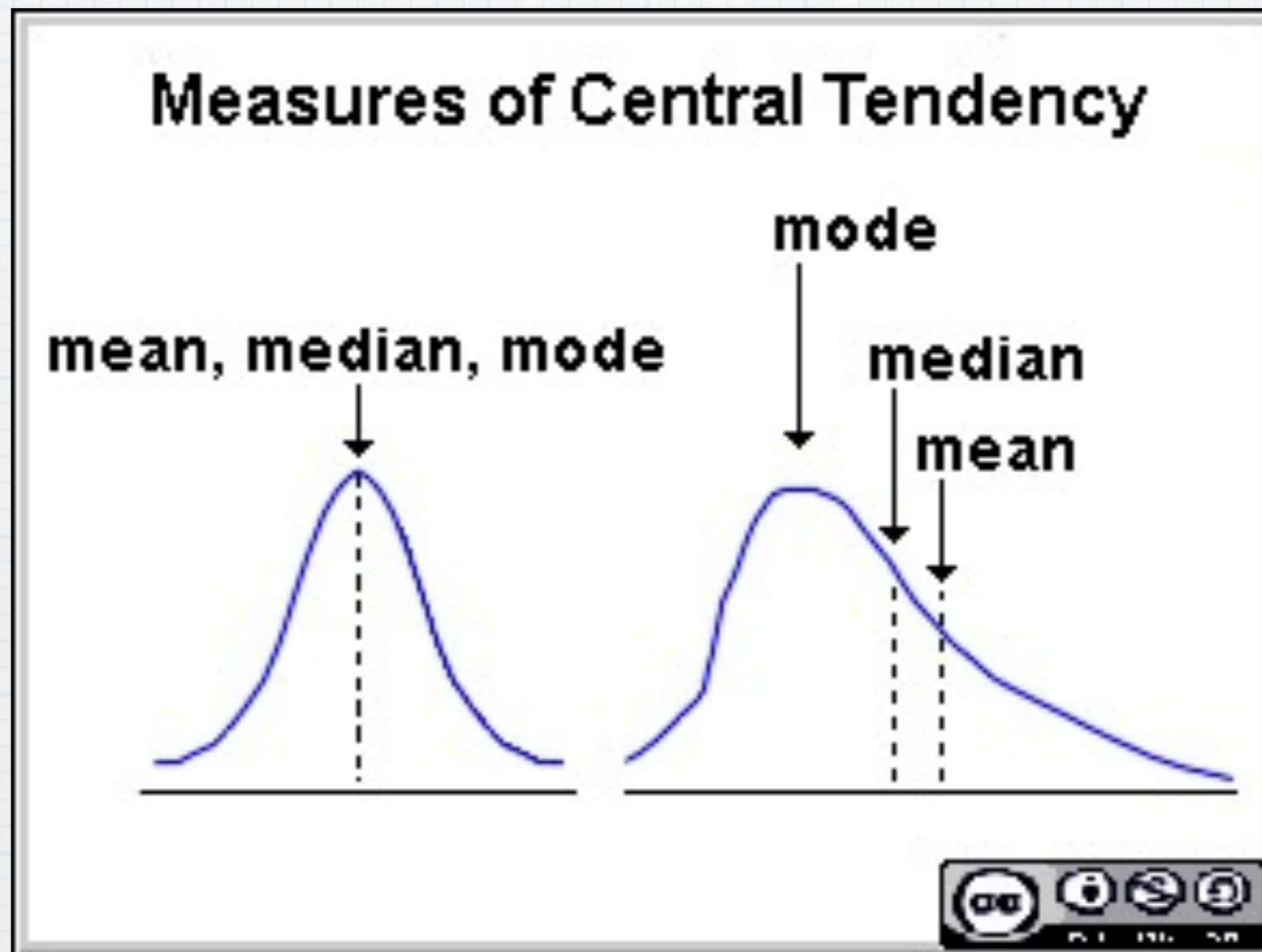


Write this
Down

Example

- * A study revealed a perfect correlation between ice cream sale and murders
- * Can we confidently say that ice cream causes murder?

Measures of Central Tendency



Measures of Central Tendency

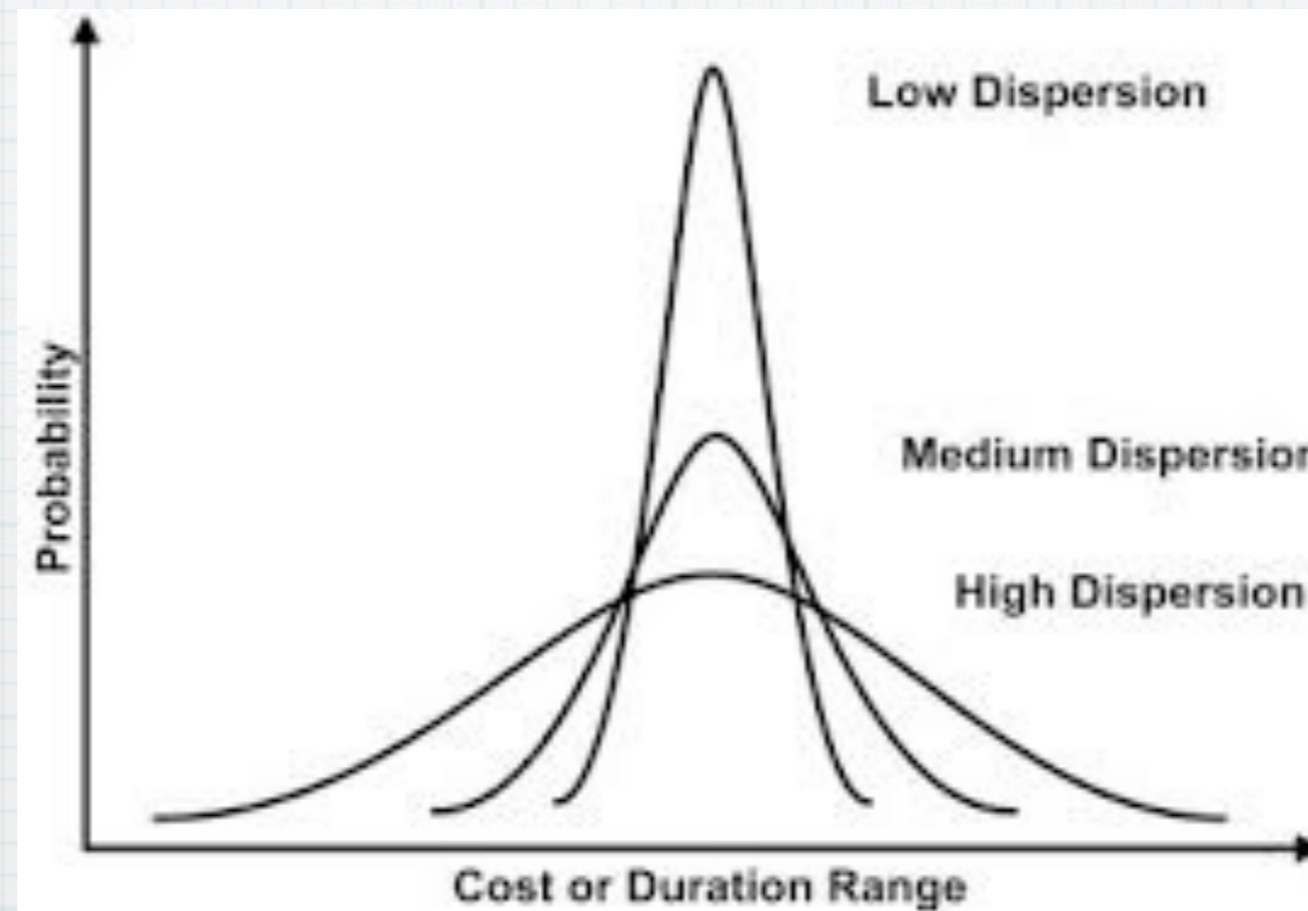
- * Mean: Sum of all values / Total number
- * Median: Middle Number
- * Mode: Most Common Number



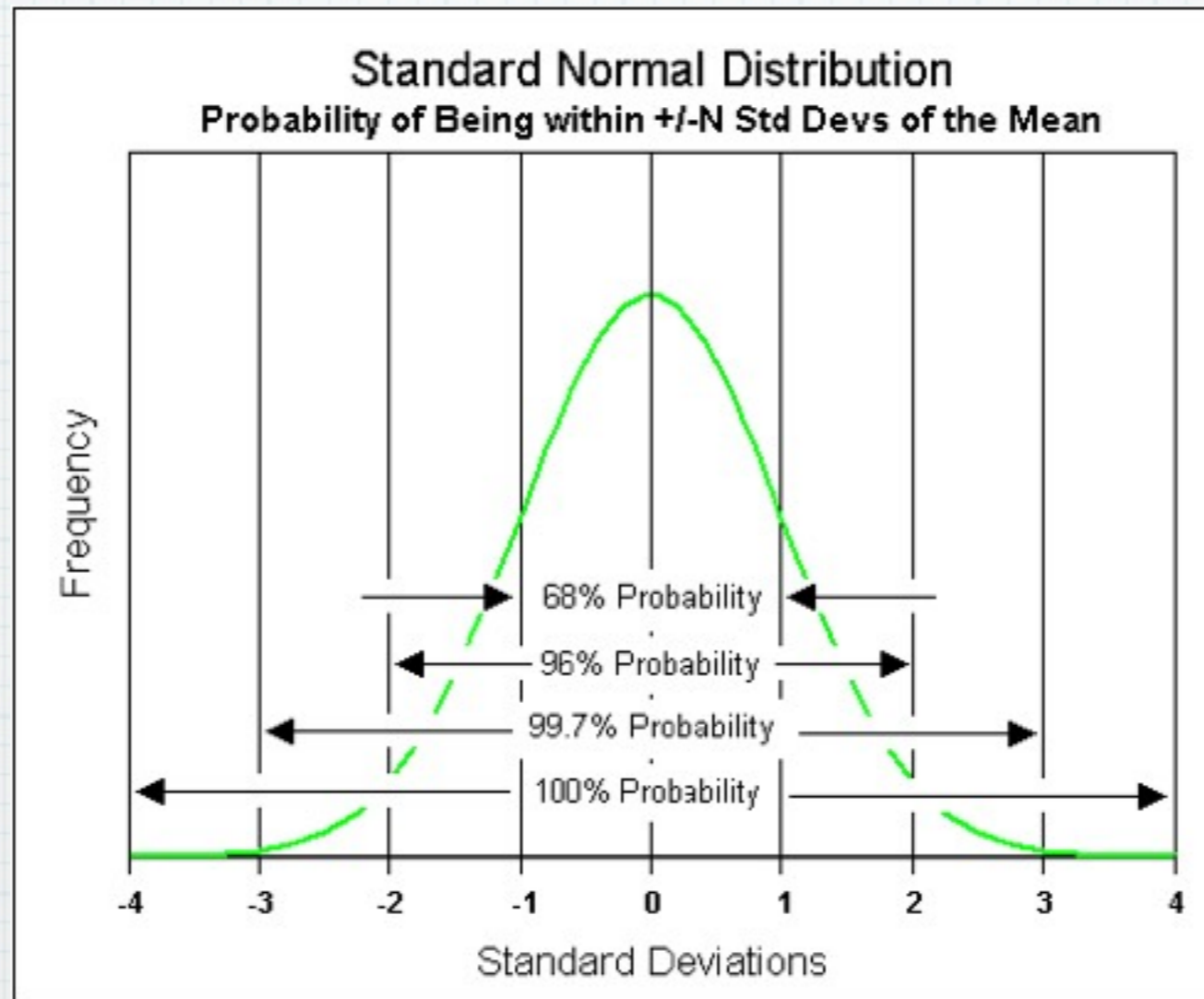
Write this
Down

Measures of dispersion

- * 3 types of dispersion: Low, Medium, High



Standard Deviation



Standard Deviation

- * Probability (p) concerns the degree of certainty that an observation occurred by chance.
- * A result is considered to be significant if it occurs 95% of the time, $p=0.05$



Write this
Down