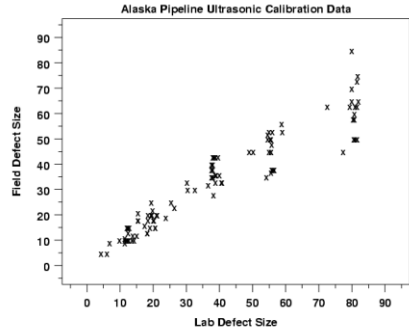
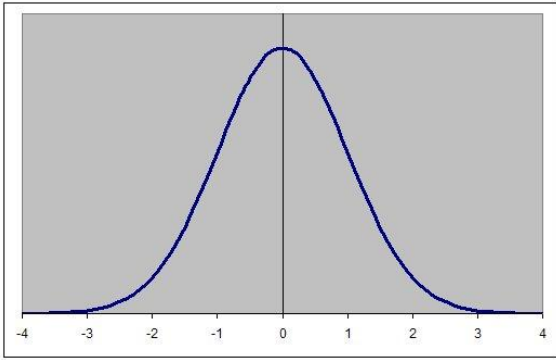


UNIT 2 — RESEARCH METHODS

Vocabulary Term	Definition of Term	Example
Hindsight Bias	The tendency to believe, after learning an outcome, that one would have foreseen it.	“I knew it all along” phenomenon
Critical Thinking	Thinking that does not blindly accept arguments and conclusions but rather examines and evaluates them to reach conclusions.	
Theory	An idea that explains, organizes, and predicts.	
Hypothesis	A testable prediction.	
Operational Definition	A statement of the procedures used to define research variables.	Human intelligence may be operationally defined as what an intelligence test measures
Replication	Repeating a research study, usually with different participants in different situations, to see whether the findings of the original study extends to other circumstances	Repeating a study with participants from a different location to see if the results of the first study are true to people from all areas.
Case Study	Observation technique in which one person is studied in depth in the hope that the findings are universal.	Phineas Gage
Survey	Technique used to find self-reported attitudes or behaviors of a particular group	Going door to door asking participants to answer questions about the community.
Population	All the cases in a studied group.	Each person participating in the survey mentioned above.
Random Sample	Sample that fairly represents a population. Each member has an equal chance of being chosen.	One participant from the survey mentioned above selected at random.
Naturalistic Observation	Observing behavior in a naturally occurring environment without manipulation.	Jane Goodall observing the natural behaviors of chimpanzees in their own environment.
Correlation	Measure of the extent to which two factors vary together (How well one factor predicts the other).	Shoe size increases as height increases. *Correlation does not equal causation!
Correlation Coefficient	Numerical representation of the relationship between two factors. (from -1 to +1)	A correlation coefficient of +.8 represents a strong relationship.
Scatter plots	A graphed cluster of dots, each of which represents the values of two variables.	 <p>(Scatter plot with a positive correlation)</p>
Illusory Correlation	Believing a relationship exists when in reality one does not.	Belief that a couples chance of conception increases after adoption when in fact it does not.

Experiment	Research method in which an investigator manipulates one or more factors to observe the effect.	Randomly assigning preterm infants to either formula or breast milk to observe the effect on intelligence.
Random Assignment	Assigning participants to groups by chance.	Separating groups alphabetically.
Double-Blind Procedure	Experimental procedure in which neither researcher nor participant is aware of experimental conditions.	
Placebo Effect	Results caused by belief alone, not by actual treatment.	Telling patients a pill will cure headaches when in fact it is just a sugar capsule.
Experimental Group	Group that is exposed to treatment.	In an experiment, the group that receives treatment for an illness.
Control Group	Group that is not exposed to treatment. Serves as a comparison to the experimental group.	In an experiment, the group that receives a placebo.
Independent Variable	Factor that is manipulated; variable whose effect is being studied.	Whether or not a participant receives treatment.
Dependent Variable	Outcome factor that is being tested.	How well the treatment does or doesn't work.
Mode	Most frequently occurring scores in a distribution.	The mode of the following: 1, 3, 3, 4, 4, 5, 5, 5, 7, 8, 9, 9 is 5
Mean	Average of a distribution.	The mean of the following: 1, 2, 3, 4, 5 is 3
Median	Middle score in a distribution.	The median of the following: 1, 2, 2, 3, 4, 6, 6, 7, 7, 7, 9, is 6
Range	Difference between the highest and lowest scores in a distribution.	The range of the following: 1, 3, 5, 6, 6, 7, 9, is 8
Standard Deviation	Measure of how much scores vary around the mean score.	
Normal Curve	Symmetrical, bell-shaped curve that describes the distribution of many types of data.	
Statistical Significance	Statistical statement of how likely it is that a result occurred by chance.	
Culture	Enduring behaviors, ideas, attitudes, and traditions shared by a group of people and transmitted from generation to generation.	American culture pushes individualism while some other cultures are more collectivist.