**Random Sample, Population and Assignment**

**Learning Target:** Distinguish between and explain random assignment & random selection. Differentiate between a population and a sample.

**Definitions:**

**Population:** The larger group from which a sample is drawn, about which researchers will make generalizations.

**Random Selection:** The selection of individuals/animals who will be chosen from the population to participate in the study.

**Random Assignment:** The likelihood that all participants in a group or a sample have an equal chance of being assigned to the different conditions within the study.

**Part I:**

**Directions:** As each example is presented on the power point, determine if the example relates to population, sample or assignment. Furthermore, determine for assignment and sampling if the examples are random. Use the laminated cards you have been provided to respond.

**Part II:**

**Directions:** For each of the following examples, identify the population and how random sample and random assignment will be achieved before actually conducting the research. **Make your population as specific as possible.**

**Examples:**

**1.** A researcher wants to conduct a study to determine if a diet rich in fruit and vegetables will reduce blood pressure. Please help this researcher define the population, and explain how he can address random selection and random assignment in his experiment.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2.** Adlai E. Stevenson High School is trying to determine if students who spend an hour meditating each day will experience reduced levels of stress.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3.** Daphne works at Lake Forest hospital as an art therapist, she wants to determine if depressed patients will be relieved of symptoms if they are exposed to abstract art four times per week.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.** The owner of a biscuit factory (with multiple locations and thousands of workers) wants to determine if playing music in the background will cause workers to be more productive.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5.** Jeremy wants to determine if watching the presidential debates or hearing the presidential debates will impact his classmates’ perceptions about the candidates.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6.** Kayla believes that time will impact one’s decision-making skills. She will test students on her campus to determine if they will make better decisions when they have more time in which to make their decision.

**Population\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Selection\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Random Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**