Worksheet 1: Specify the Outcome, Predictors, and Hypothesis of Interest

Prompt: You are planning a study to see if a sensory focus intervention can change participants’ memory of pain from a root canal procedure over time. You plan to analyze data from the study using a Type I error rate of 0.01. You want to know how many participants to enroll in the study to achieve a desired power of 0.90. Circle the answer to the questions below to create a list of the important design elements you will need to calculate an accurate sample size.

Question 1: What are you going to calculate?
   a. Power
   b. **Sample size**
   c. Type I error
   d. Size of the national debt

Question 2: What is the desired power?
   a. 0.80
   b. **0.90**
   c. 42
   d. 0.01

Question 3: What is the planned Type I error rate?
   a. 0.90
   b. 0.10
   c. 0.05
   d. **0.01**

Question 4: What is the outcome of the study?
   a. Coping style
   b. World peace
   c. **Memory of pain**
   d. Intervention group

Question 5: What is the predictor of the study outcome?
   a. Coping style
   b. Memory of pain
   c. IQ
   d. **Intervention group**

Question 6: What is the study hypothesis?
   a. **Difference in memory of pain between intervention groups over time**
   b. Difference in memory of pain between coping styles
   c. Change in global temperature over time
   d. Life, the universe, and everything