Top of Form

|  |
| --- |
| This assignment consists of three parts:  (1)  **Sample Selection**  Recommend the steps that should be taken to draw the particular sample described below.  Format your response as a procedure.   1. A stratified sample of 75 doctors, 75 lawyers and 75 engineers who belong to a professional organization in that you belong to. 2. A simple random sample of 150 subscribers to your local newspaper. 3. A systematic sample of 250 subscribers from a subscriber list of a trade publication.   (2)  **A Priori Power Analysis**  Download the G\*Power software provided, and then use the software to submit the following:      a. Calculate the estimated sample size needed when given these factors:   * one-tailed t-test with two independent groups of equal size * small effect size (see Piasta, S.B., & Justice, L.M., 2010) * alpha =.05 * beta = .2 (Reminder: Power = 1 - beta) * Assume that the result is a sample size beyond what you can obtain. Use the compromise function to compute alpha and beta for a sample half the size.   + Indicate the resulting alpha and beta.   + Analyze the result and decide if the study should be conducted with a smaller sample size. Explain your rationale.   + In the context of Type I and Type II error.   + Include a visual of the G\* Power output matrix.     b. Calculate the estimated sample size needed to perform an ANOVA (fixed effects, omnibus, one-way) when given these factors:   * ANOVA (fixed effects, omnibus, one-way) * small effect size * alpha =.05 * beta = .2 * 3 groups * Include a visual of the G\* Power output matrix.   (3)  **Intended Research Sampling Method**  Describe the sampling method that would be appropriate for your intended research.   1. Outline the problem statement, purpose statement, and research questions. 2. Describe the population of interest (also referred to as the theoretical population). 3. Identify the sampling frame to be used to recruit participants. 4. List criteria to be met for an interested person to participate in the research study. 5. Compute an estimated sample size. 6. Describe the recruitment procedure that might be used to draw the actual sample.   Length:  Your paper should be between 5 - 10 pages not including title and reference page. Results of the G\* power analysis that will add length to the paper.  References:  Include a minimum of five (5) scholarly sources.  Your presentation should demonstrate thoughtful consideration of the ideas and concepts presented in the course and provide new thoughts and insights relating directly to this topic. Your response should reflect scholarly writing and current APA standards. |