Pacific Analytics LLC

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Pacific Analytics

Statistics Consultation Preparation Questionnaire

Dear Client,

     To better assist you, Pacific Analytics invites you to provide information about your project. It has been our experience that clients benefit from some simple preparation for consultations. Answers to the following questions will help you clarify your objectives, and help us focus on your actual statistical needs. Please forward your answers to us, by mail or email. Thank you for taking the time to prepare for your consultation.

1. **Objectives of the Study:**

   a. **Motivation:** What are the scientific questions to be answered by the study? Please provide background information about why the study is being conducted, what key questions will be investigated, and what kinds of answers are expected.

   b. **Kind of study:** Is the study a planned experiment or retrospective observations? Is the study a type of monitoring, (the investigation of changes over time)?

   c. **Previous results:** Is the study closely related to a previous study? Is the current study similar in design, in the key questions, or does it test previous results? Please provide references to the previous studies that are being used as models.

2. **Understanding the System:**

a. **Population of Interest:** What is the statistical population of interest? How widely do you wish to apply the findings or inferences of this study?

b. **Response factor characteristics:** Is the outcome of your study to be expressed as counts, measures, ratios, intervals, lifetimes, hazard/risk, rates, or other attributes?

c. **Explanatory factors:** In theory, how do the explanatory variables influence the response variable(s). How will this study test the hypotheses?

d. **Confounding factors:** List all the factors that may influence the response variable(s). How will these factors be addressed in the study design?

3. **Structure of the Study:**

a. **Treatments:** What are the treatments being tested? Why have these particular treatments been selected?

b. **Events:** If the study is observational, what are the past events of interest? Why have these particular events been selected? If the study is a monitoring investigation, what is the overall period and frequency of measurements?

c. **Experimental or observational units:** What is the experimental or observational unit? Are there sub-units within larger units (e.g., segments of streams, soil samples from localities, trees in stands, water samples from wells, etc.)?

d. **Randomization and replication:** How will the experimental or observational units be selected? How will the experimental units be assigned to treatments or events? How many units will be included in each treatment or event? Has there been any estimate made of expected variances, and/or has any power analysis been performed?

e. **Blocking:** Are there natural "groupings" of the experimental or observational units? Is stratification important in the study?

f. **What will be measured?** What is the amount and type of data that will be collected (e.g., counts, attribute measurements, ratios, intervals, etc.)? How will the measurements be taken (e.g., traps, tape measure, moisture meter, sightings, clocks, etc.)? What is the expected magnitude of the measurements taken? Is *time* a factor? Are there repeated measures on the same experimental or observational units? Is this a monitoring study? Will measurements of associated and/or confounding factors be taken?

4. **Data Management:**

a. **Error control:** How will the data be evaluated and corrected for errors?

b. **Storage and retrieval:** Will a database be created? Will existing databases be used? Will the data be used again in the future?

c. **Confidentiality:** Is the data proprietary? Who will use the data?

5. **Reporting the Results:**

a. **Audience:** Who will receive the reports? Is this study intended for decision-makers, regulators, property managers, and/or the general public?

b. **Format:** What will be the format of the report? Is the report intended for publication and/or presentation? Will multimedia be used?

c. **Accuracy:** What levels of accuracy and precision does the audience require? Are confidence intervals and standard deviations important?

d. **Significance:** What magnitude of the response variable(s) is considered of practical significance?

6. **Resources of the Study:**

    a. **Budget:** What is the budget for the study?

    b. **Personnel:** How many people will be involved with the study? What roles will they play?

    c. **Schedule:** What is the timeline of the study?

7. **Additional materials and special questions:**

Please provide any representative tables, figures, diagrams, maps, proposals, requests for proposals, guidelines, and/or other materials that may help us understand your study, and please prepare your particular statistical questions.