AMI Study Final Report

Field Ecology

This report is an individual assignment. It should be written in the PAST TENSE (because you are writing this report after your project is complete).

Introduction:
This section of your report consists of a description of your question and the background information about your project that you collected when researching your hypothesis. You should include in-text citations for your research where appropriate. The last sentence or sentences of your introduction should be your hypothesis and a brief summary of the scientific reasons why you made that prediction.

Methods:
This section of your report will describe how you collected your data. Your methods should take the form of four step-by-step lists. The first list should describe how you collected and measured AMI's; the second list should describe how you measured dissolved oxygen; the third list should describe how you measured turbidity; and the fourth should explain how you calculated diversity.

Make sure that your instructions are clear, detailed, and describe the actual steps you took to make your measurements and calculations.

Results:
This section of your report will describe the information you found and should include a data table (NOT a graph!) that summarizes the measurements and calculations you made.

Your data table should be formatted in a professional-looking way and include proper column headings.

Your data should include all of the valid measurements from your class period and the other class.

Discussion:
In this section of your report, you will use your data to answer your question. This section will include graphs that show the trend in your data along with your interpretation of these graphs and an overall critique of your study.

Your graphs should be two x-y scatterplots that include a trend line and an R^2 value. They should be neat and professional-looking, with appropriate titles for each graph and axis. One graph will relate the dissolved oxygen in each location to the AMI diversity and the other graph will relate the turbidity in each location to the AMI diversity.

For your written analysis, answer the following questions (in paragraph form) for EACH graph – you are answering these questions separately for the dissolved oxygen and turbidity data:

1. What was the correlation that your data shows – positive (up and to the right); negative (down and to the right); or none (more-or-less horizontal line)?
2. What does this correlation tell you about the answer to your question?
3. What does your R^2 value tell you about your confidence in this answer (the closer to 1, the more confident you are that your data really shows this trend)?
4. What ecological factors do you think might have influenced the correlation (or lack thereof) that you see?

Your response to questions 1-3 should be one or two sentences long at most (for each graph). Your response to question 4 should be about one paragraph in length (for each graph). Your total written analysis should consist of somewhere between 4 and 6 paragraphs.

Sources Cited:

In this section of your report, use a citation maker website to create full APA citations for each of your references. For full credit, you should have at least three sources.