Mini-Lab Report for the Dive Response Experiment

Follow the format outline as shown in the handout “HOW TO WRITE A FORMAL LAB REPORT”. For the mini-lab report you will use the same elements but in shorter sections. Include:

1. **A DESCRIPTIVE title**

2. **Introduction** (one paragraph)
   
   Provide a brief synopsis of the dive response and breath-hold duration in humans and animals. End with a couple of sentences indicating the type of experiments you conducted in lab (i.e. We investigated factors affecting diving bradycardia, that is decreased heart rate, in humans during face immersion.)

3. **Materials and Methods** (one paragraph)
   
   Briefly describe your methods including your subjects (gender, age, body mass, swimming/diving experience- a table will help), and the specific experiments you conducted to assess the factors controlling the dive response in humans.

4. **Results** (one paragraph of text, one graph and one table with data on separate pages)
   
   Describe the results of your experiments and illustrate with one table and one graph. Refer to the “HOW TO…” handout for details on how to format your graphs and tables. One suggestion for a figure is a bar graph comparing the mean heart rate for controls, face immersion, breath-holding in air, etc.

5. **Discussion** (one to two paragraphs)
   
   DISCUSS your results in the context of other scientific papers – don’t simply repeat your results. Instead, how do your results compare to other studies that have investigated the factors that control the dive response and/or bradycardia in humans or animals. Provide citations and a reference list for all scientific papers that are referred to in your text.
   
   You DO need to talk about ALL of your data.
   
   - Important note: The word “significant” has a special meaning in scientific writing. You can only use this word to describe trends that you have conducted a statistical analysis for. So, do not use it.
   
   - Think about and answer the following questions:
     o Based on YOUR experiments what are the key factors that instigated a dive response in your subjects?
     o What effects did breath-hold in air, breath-hold in water, previous swimming experience, age, gender, etc. have on heart rate and peripheral temperatures?
     o Are the data consistent with your expectations?

NOTE!!!! Although you are working in groups you are responsible for writing your own report including the creation of tables and figures. DO NOT plagiarize material from other papers, the internet, etc. – this constitutes cheating. ALL OF THE MATERIAL IN YOUR REPORT MUST BE ORIGINAL TO YOU.