Week 2 Quiz

1. **Explain the steps in the research process.**

    Step 1: Identify a Topic- this is where you find a subject of interest that you would like to perform a study on.

    Step 2: Find, Read, and Evaluate Past Research- this is where you look for literature on your topic of choice to gain more information about it so it helps your study.

    Step 3: Refine Topic and Develop a Hypothesis- this is where you narrow your topic down to your focus point and develop a hypothesis based on your research findings as what you presume to be true.

    Step 4: Design the Study- this is where you will be tailoring your study to your liking that produces the best results that either confirm or disprove your hypothesis statemen with factual data.

    Step 5: Carry Out the Study- This where the execution of your research study comes into play

    Step 6: Analyze the Data- Now that you have executed your study, here is where you examine the results

    Step 7: Communicate Results- this is where you formulate your response to the findings of your study.

2. **Explain the difference between scholarly versus popular sources. Provide an example of each. Finally, which of the two should be more commonly used by you in developing your thesis and why?**

    A scholarly source is piece of work that meets all of the following criteria:

    - The goal of the work is to advance knowledge and scientific study in the field.
    - The author(s) have expertise in the field.
    - The work is written for an audience with knowledge in the field, as opposed to the general public.
    - The work builds upon other scholarly sources that are clearly cited.

    A popular source is there to educate or entertain a general audience that may not have expertise in the field. An example of a scholarly source would be an academic journal written by an expert in that field of whatever he is writing about. Now, an example of a popular source would be Wikipedia or other websites, even blogs. When it comes to developing my thesis, scholarly sources are the types of sources that should be more commonly used because they provide the most credible information for my point of study.

3. **Briefly describe the purpose of each section in a primary research article.**

    The primary research article has 4 major divisions which includes: Introduction, Method, Results, and Discussion. The introduction introduces the topic and its importance along with the review of past research but maintains a focus on the current as well. Next, the Method section is where the method in how we are going to test the hypothesis or help answer research questions is brought to light. Results is where the findings of the analyses conducted are explained. Finally, the discussion is where the article summarizes

key results, puts the results into context, and then identifies the direction for future research, .

4. **Compare and contrast reliability and validity.**

   Reliability, "refers to the expectation that we will find similar results when we repeat a study." (Adam and Lawrence, 2019) While in validity there are two types, there is internal and external validity. Internal validity is when you can say that you found accurate information about the relationship of variables. On the other hand, external validity is when you look at the results of another study and can say that the information is accurate for different people with different study methods. Our text points out that, "Results of a study cannot be valid unless they are reliable. Results of a study can be reliable but not valid." (Adams and Lawrence, 2019)

5. **What are the four scales of measurement in statistics? Explain each and provide an example of each.**
   The four scales of measurement are nominal, ordinal, interval, and ratio. Nominal Measurement Scale is a scale that represent different categories, they only have identity and have no numerical value. An example of this would be demographic data like gender, marital status, ethnicity, etc. Next, we have the ordinal measurement scale, and that is when you are ranking a subject in specific order whether least to greatest or greatest to least. Ranking the best NBA teams from best to worst would be a great illustration of this. Thirdly we have interval measurement scales, these are "ratings that have both order and equal intervals between values on the scale."(Adams and Lawrence, 2019) Surveys or questionnaires with items that range from "Strongly agree" to "Strongly disagree" would best describe the interval type of scales. Lastly, ratio scales are scales that measure quantity, have order, and a true zero rating. Measuring distance, time, and weight are examples of ratio scales.