Week 2 Assignment – Sheria J

Question 1: Explain the steps in the research process. Note: This problem may be easier to write in a bulleted fashion (versus a paragraph).

Steps in the Research Process:

1. Identify Your Topic
2. Find, Read and Evaluate Past Research
3. Further Refine Your Topic and Develop a Hypothesis or Research Question
4. Choose a Research Design
5. Plan and Carry Out Your Study
6. Analyze Your Data
7. Communicate Results

Question 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?

Scholarly sources refer to experts, researchers and theorists who have first-hand knowledge on a particular topic. They are considered subject matter experts on a particular subject and may have even "coined" a particular definition. An example of a scholarly source would be articles that are peer-reviewed. Popular sources are written for a reader's entertainment or for the general public like a local newspaper. For my thesis, I will be using articles that peer reviewed. This is important because I know that the material have been vetted by experts in that particular field and that the source is credible.

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

The four main sections of a primary research article:

1. **Introduction:** In the beginning of this section, you will introduce your topic and why it is important to conduct research on. You will provide an overview of past research, reason for current study and hypothesis.
2. **Method:** Discuss scales, methods used to tests hypothesis. Participants and subjects used should be included.
3. **Results:** Provide results of analysis used to test hypothesis or help answer the research question that was stated in the Introduction and Method.
4. **Discussion:** explain the results in layman terms without the technical knowledge. Summarize and indicate if the results support the hypotheses. Indicate if the results support past research and if there are gaps, limitations or need for future research.

Question 4: Compare and contrast reliability and validity.

Reliability measures consistency and validity measures accuracy. One cannot exist without the other. If the measure is reliable and not valid or if it is valid and consistent the data will not be useful or meaningful. When looking at reliability and validity they are viewed from two perspectives their measure level and study level. For example, when taking measurements on a scale; when testing for reliability the subject who steps on a scale should weigh the same if they were to weigh themselves again an hour or one day later. If the scales provide similar readings, it would be considered reliable and/or consistent. In order for the measure to be valid, the instrument used must have the ability to measure

the construct (ex. Weigh loss). For instance, face validity would not be a useful measurement to track if someone has gained or loss extra pounds.

Question 5: What are the four scales of measurement in statistics? Explain each and provide an example of each.

The four (4) scales of measurements:

<table>
<tr><td>1. Nominal</td><td>Qualitative
Strictly names, labels, and attributes
(Least Complex)</td></tr>
<tr><td>2. Ordinal</td><td>Qualitative
Data that is ranked, the rank has meaning, however, it differs because the ranks are not the same</td></tr>
<tr><td>3. Interval</td><td rowspan="2">Both are quantitative in nature. Numbers used in a numerical fashion.
Most complex – you can do math with ratios not with nominal.
Ex. Likert scale is interval and quantitative; it is the only way to test your hypothesis.</td></tr>
<tr><td>4. Ratio</td></tr>
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