

**Raquel Shaffer**  
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**Week 2: Quiz**

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

Step 1: Identify a Topic - This is where you find a topic you're interested in.

Step 2: Find, Read, and evaluate Past Research - This step is where you research literature about your topic. You will have to go back to his research often during this process.

Step 3: Further Refine Your Topic and Develop a Hypothesis or Research Question - This step is where you develop a testable hypothesis based on step #2.

Step 4: Choose a Research Design - This step is where you test your hypothesis by choosing a research design. There are three to choose from: Descriptive, correlation, and experimental.

Step 5: Plan and Carry Out Your Study- This step is where you get approval from your advisor and the IRB. They will ensure that your research is valid and will do no harm.

Step 6: Analyze Your Data - This step is where you choose the best way to analyze your data. Your tools should help you answer your research questions.

Step 7: Communication Results - This step is where you consider what the results of your research mean. You compare them to past research and share what you learned, including what limitations you discovered.

**Question 2:** Explain the difference between scholarly versus popular sources.

Scholarly sources meet the following criteria: as stated on pg 33

- advance knowledge and scientific study in the field
- Authors have experience in the field.
- Written for an audience with the knowledge of the field.
- the work builds upon other scholarly sources

Popular sources are those that educate or entertain a general audience.

Provide an example of each.

Scholarly source: Peer Reviewed journal articles, scholarly books, theses, and dissertations.

Popular Sources: websites, online blogs, newspapers, and magazines.

Finally, which of the two should be more commonly used by you in developing your thesis and why? A Scholarly source should be used to develop your thesis because the author has knowledge of the study compared to a popular source which does not require any expertise in the field.

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

- Introduction - Introduce the topic and why it is important. / Review Past Research/ Focus on the current study.
- Method - Explain the method used to test the hypotheses or help answer the research questions.
- Results - Explain the results of analyses conducted to test hypotheses or answer research questions.

- Discussions - Summarize key results, Put results into context, and identify directions for future research.

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

Reliability is understood as the consistency of measurement. In research, you can use different scales to measure your variables. You may find many reliable tools to provide the consistency you need for your research. A reliable study can be replicated with new people or with a new method.

Validity is understood to be what is accurate. There are a few ways to measure validity, such as divergent validity, criterion validity, concurrent validity, and predictive validity. Each of these measures a different relationship between scales and behaviors.

Just because a study is reliable does not mean that it is valid. You need both validity and reliability in an excellent study.

**Question 5:** What are the four scales of measurement in statistics? Explain each and provide an example of each. (found on pages 79-83)

Identity: Each number has a unique meaning

Order: Numbers on a scale are ordered in sequence.

Equal Intervals: The distance between numbers on a scale is equal.

True Zero (or absolute zero): The score of zero on a scale is a fixed point.

Nominal Scales: a measurement scale where numbers represent categories with no numerical value.

Ordinal scale: A measurement scale with numbers that have order so that each number is greater or less than others, but the interval between the numbers is not equal, also called rankings.

Interval scale: a scale of measurement that has noth order and equal intervals between values on the sale. (Likert-type scale: a commonly used type of interval scale response in which items are rated on a range of numbers (usually between 5 and 7 response options) that are assumed to have equal intervals.

Ratio Scale: A measurement scale where values measure quality and have order, equal intervals, and a true zero.