Unit 2 Research Methods Concept Sheet

Directions: As you read the modules (pages 29-74) in Unit 2, answer the following questions fully and in complete sentences. You cannot type your responses.

1. Explain how hindsight bias, overconfidence, and our tendency to perceive patterns in random events all contribute to the need for empirical research.
2. Why is there a need for replication in research?
3. What are the strengths and weaknesses of using a case study as a research method?
4. What are the strengths and weaknesses of using naturalistic observation as a research method?
5. What are the strengths and weaknesses of using a survey as a research method?
6. How does one acquire a random sample, and why is it needed when researching?
7. What is the fundamental difference between correlational research and an experiment?
8. A teacher uses statistics to track student progress on his tests. The test scores of his first period class had a mean score of 86 and a standard deviation of 4.0, and the test scores of his second period class had a mean score of 78 and a standard deviation of 10.0. What does this data reveal about his two classes?
9. What does it mean when research data is found to be statistically significant?
10. Describe illusory correlations.
11. How does culture play into results for one’s research?
12. Why are ethics important in research?
13. What are some of the major ethical differences between testing human participants and animal subjects?